

EDWIN CHADWICK
AND THE PUBLIC HEALTH MOVEMENT,
1832 - 1854.

THESIS
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PART ONE.

THE PUBLIC HEALTH AGITATION,

1832 - 1848.

CHAPTER 1.THE CHADWICK LEGEND.

Few men have done so much for their fellow-countrymen as Edwin Chadwick, and received in return so little thanks. The memories of an old oppression still cling to his name, and there has grown up around him a legend of humourless arrogance and inhuman efficiency, of doctrinaire intransigence and ruthless driving power. He has become the type of the Bureaucrat, whose ideal government is a vast Panopticon, where under the austere benevolent eye of the State official every individual lives and works, the spontaneous activities of each moulded by a controlling intelligence to some distant social end. He is the suspected channel of foreign ideas, of German absolutism and French centralisation, alien transplantations into the free soil of the British constitution. In him is seen the embodiment of that imperial ambition of the civil service, which since his time has assumed so great an ascendancy in the executive, causing Lord Chief Justices in these latter days to prophesy gloomily the undoing of Parliaments and Lord Chief Justices.

To every legend there is some basis in fact. It cannot be denied that Chadwick possessed certain qualities of character which during his life time isolated him behind a prickly hedge of antipathy and distrust. He was a bore, a really outstanding specimen of bore in an age when the species flourished; the fact sticks out in every line of his clumsy, graceless prose, and in his continual revolution of the same fixed circle of ideas. He was too keenly aware of his own merits; while, on the other hand, he did not suffer fools gladly --- and his definition of a fool was a very wide one. He embittered controversy by his unswerving opinion, which

he rarely attempted to conceal, that any one who disagreed with his views must be guilty of intellectual weakness or moral failing. With a wholesome suspicion of power wielded by others he combined an unbounded confidence in the potentialities of power in his own strong hands, and every scheme drawn up by Edwin Chadwick seemed to contain at some point a provision for giving more power to Edwin Chadwick. But, granted all this, it would be an error, and a grave injustice to Chadwick, to write off the antagonism he aroused as due to his personal faults. He was for a few years the most hated man in the country; not because he was cruel or vicious or corrupt, but because his name became the symbol of a soulless system of government by the paper regulations of a distant bureaucracy, and because --- a reason with more substance --- his investigations snatched aside the veil of indifference and good breeding which concealed the naked clash of economic forces, leaving starkly displayed the tainted sources of many respectable fortunes. He stirred up a great deal of mud, and it is a tribute not a reproach that so much of it was thrown back at him by his critics. Other men were more in the public eye, commanded greater respect and certainly inspired deeper affection --- and have since been more fortunate in their biographers. But no man, not even Lord Shaftesbury, has more solid achievements in the field of social reform to his credit, and no man did more to curb and harness the crude capitalist energy which, when Chadwick began his work, was busy building a new earth on foundations laid deep in a new hell. The career of Edwin Chadwick may well serve as the classical illustration of a historical truth too often neglected, that the shaping of events may often owe less to the Parliamentary gestures of the statesman than to the whispered advice of some obscurely influential figure, unnamed and unpraised, in a Government office.

Edwin Chadwick was born on January 24th 1800 in the village of Longsight, near Manchester. His grandfather, "good old Andrew Chadwick", was "the oldest Methodist in all England when he died" in 1815 at the age of 93.⁽¹⁾ The first Sunday School in Lancashire was founded by him, and Wesley frequently held meetings at his house. He was reputed to be the nearest heir to the fortune of the eccentric knight, Sir Andrew Chadwick, whose will, scrawled on two bits of chandler's shop wrapping paper just before his death in 1768, was for more than a century the subject of Chancery suits; but he persistently refused to take steps to obtain the estate, saying that the things of this world were quite enough for him, and that "it would only make his family proud and thus endanger the salvation of their souls".⁽²⁾ This was a line of argument quite foreign to his grandson, who never felt his soul in danger from money or anything else, and who gave as an additional and stronger reason for this rare self-restraint that old Andrew did not know that the estate was so considerable. Edwin's father, James Chadwick, was an active liberal politician, a friend of the blind poet and abolitionist, Edward Rushton, and joint editor with the radical journalist, Cowdray, of the "Manchester Gazette".⁽³⁾ It is probable that

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1. Alice Boardman (an American cousin of Chadwick's) - E.C., n.d.; probably c. 1878, when he was collecting facts about his family history, apparently with a view to claiming Sir Andrew Chadwick's estate, the value of which was estimated in 1836 to be about £1,500,000.
2. *ibid.* For Sir Andrew Chadwick, see "Notes and Queries", Fourth Series, No. 11, 7 Nov., 1868, p. 441.
3. James Chadwick was a man of some scientific and artistic ability, and is said to have taught botany and music to John Dalton. He edited the "Statesman" during the imprisonment of its editor, David Lovell (1811, 1812 - 15). Leaving London for Exeter, he became editor of the "Western Times". About 1837 he emigrated to America with the younger members of his family by a second marriage. Henry Chadwick (1824 - 1908), Edwin's half-brother, achieved fame in a different sphere of legislation; he codified the rules and scoring of baseball, and became the "first important sports writer in America" (see D.A.B.)

Edwin Chadwick's sympathies and understanding were conditioned by a home in which the distress of the lower classes and the means of relieving it were earnestly discussed, but his mind took no direct impress from the nonconformist and popular radical influences amongst which he was raised. James Chadwick must have been shocked to read his son's gibes at radical demagogues, while "good old Andrew" would have been horrified to hear his grandson rank the dissenting chapel with the beershop and the Trade Union as the triple corruptions of the poor.⁽¹⁾

After some schooling at Stockport, Chadwick left Longsight for London when he was ten years old, and entered an attorney's office as a pupil at the age of fourteen or fifteen. He picked up a little lawyer's Latin and sufficient French to follow the debates in the Chambres, and read something of Swift and Defoe; but his formal education was fragmentary, and his self-planned studies severely technical and utilitarian. For a career in the public service, he would undoubtedly have said, his equipment was none the worse for that. What was history after all but "one great field of cram", and literature but the study of idlers who read for amusement? As for the classics, if they were brought out

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1. Details of Chadwick's early life are meagre. We may judge of the relationship between him and his family by this revealing extract from a letter to an American cousin, written towards the end of 1852 when it was clear that the General Board of Health was nearing its end: "Under the circumstances I wish you to warn those whom it may concern of the uncertainty of the continuance of any income from me; --- the only thing which has ever seemed to me to concern them. Except from Julia and yourself, and from my brother James, almost the only letters I have ever received from any one member of my family, since I arrived at man's estate, any other than spunging applications cries (of) Give, Give; never a personal civility, a message or an act that shewed sympathy for my labours, or couched with any view to give me pleasure, nothing but indirect or direct pauper importunities". (E.C. - Andrew Boardman, n.d.).

anew and sold in Holywell Street, the authors and booksellers would be prosecuted by the Society for the Suppression of Vice.⁽¹⁾ He had the deepest contempt for the aristocratic notion that no ideas of value could be expected from anybody who "had never been at either university, written a nonsense verse, or scanned a line of Horace".⁽²⁾

Chadwick was admitted to the Society of the Inner Temple in 1823, and, while continuing his reading for the Bar, earned a slender living as reporter on the "Morning Herald". By 1825 he was on good terms with the brilliant group of younger Utilitarians, and was frequently invited to dinner at John Mill's to meet George Grote, J. Eyton Tooke, James Roebuck, and John Graham.⁽³⁾ He debated morals and metaphysics in a discussion class at Grote's;⁽⁴⁾ he heard John Austin lecture at the new College in Gower Street;⁽⁵⁾ daily he encountered the seminal ideas of Benthamism, and the energy of the Benthamite thrust gave direction and vigour to his thought. Of equal significance for the future, he met Southwood Smith and Dr. Neil Arnott, and at University College he became familiar with current medical doctrine by discussions with students of the

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1. E.C., "Subjects for Competitive Examination", 1890.
2. E.C., "On Life Assurances", "Westminster Review", Feb. 1828.
3. J.S. Mill - E.C., 1825: "I hope you are not the 'young law student of Lyon's Inn', whose chère amie tried to throw herself into the Thames yesterday". At one time he seems to have had thoughts of marrying into the Mill family.
4. This is probably the discussion group described in Mrs. Grote's "Personal Life of George Grote", 2nd. ed. 1873, p. 60. The group met on two mornings a week at 8.30 a.m. for an hour or an hour and a half to read Mill, Hartley, Dutrieux, and Whately. But Mrs. Grote does not include Chadwick in the list, which includes the names of J.S. Mill, Charles Buller, Eyton Tooke, J.A. Roebuck, G.J. Graham, H. Grant, and W.G. Prescott.
5. The class lists for Austin's lectures from 1828 - 1830 include the names of Chadwick, J.S. Mill, J.A. Roebuck, Eyton Tooke, John. Edward and Charles Romilly, G.J. Graham, G.C. Lewis, and Charles Buller (see Hale Bellot, "History of University College", pp. 187 - 188).

best medical school in Europe.⁽¹⁾ In politics and religion alike he began to apply the same test, judging all activities by the volume of social benefit resulting from them. He turned his back on Wesleyan Longsight, and professed himself a member of the Church of England --- the faith of "Jeremy Taylor, of Bishop Berkeley, of Paley"⁽²⁾ --- because in his experience Anglican priests did more practical good amongst the poor than the Dissenters or the Roman Catholics. The parish incumbent who busied himself as agent for the savings bank and the clothing club, and who trusted to soap and water rather than to mystical theology for the redemption of his flock, was worthy of more respect than the Nonconformist preacher who stimulated a dangerous emotionalism in his hearers and meddled in unpractical political agitations; and he was immeasurably superior to the Roman Catholic priest who taught his people to revere stinking saints and impure monks, and who could enter unmoved the overcrowded hovel of an Irish cottier, where the sexes festered together in an atmosphere compounded of the smoke of a chimney with the stench of a privy.⁽³⁾ In the political sphere he watched with sceptical detachment the

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1. "From discussions with them I derived a strong conviction of the superior importance of the study (as a science) of the means of preventing disease, and I was the better enabled to perceive some of the important relations of the facts, partially expressed by vital statistics, which were brought before me in my public investigations". (E.C. - Dr. R. Willis, 31 July 1844). Sir E.H. Sieveking in 1838, after spending some years at the schools of Paris, Berlin, and Edinburgh, ranked University College above them all. (Hale Bellot, op. cit., p. 147).
2. E.C. - Dr. Buckland, 17 January 1844.
3. E.C., "Notes on Sanitation", MS draft written at the time of the "Papal Aggression", 1850. Florence Nightingale, it may be noted, applying the same utilitarian test, came to a diametrically opposite conclusion. "In all the dens of disgrace and disease", she records in one of her notebooks, "the only clergy who deserve the name of pastors are the Roman Catholic. The rest, of all denominations --- Church of England, Church of Scotland, Dissenters --- are only theology or tea mongers". (Sir Edward Cook, "Life of Florence Nightingale", vol. 1, p. 57).

clash of party catch-words and the manoeuvrings for Parliamentary majorities. "I am a zealous advocate of all social improvements", he declared, "and am therefore an ally of any people by whom improvements would be made." (1) In the public health campaign a few years later he found his friends in both camps, looking to Tory paternalism to restrain the narrow individualism of petty Radical tradesmen, and to Radical irreverence to loosen the bonds of Tory traditionalism. He was not the man to applaud the antics of the "Trijackia", John Mill, John Graham, and John Roebuck, when they made their jaunt to revolutionary Paris in 1830, and startled the French by calling loudly for the "Marseillaise" when Louis Philippe visited the Opera. (2)

The struggle for recognition in the hard schools of journalism and the law marked him for life with the self-consciousness and truculence of the man who owes everything to his own exertions --- the self-made man, proud of his creation but sensitively aware of its imperfections. In Fleet Street and the Inner Temple he learned habits of tremendous industry and methods of investigation which were later to serve him in good stead; and with them he acquired a cocksureness of manner which, coupled with a natural arrogance, set people's teeth on edge.

At thirty his aim in life was not yet settled, and his abilities, sharpened by application and a hard and varied upbringing, were awaiting their opportunity. He had been called to the Bar, and was well spoken of in the Courts. Albany Fonblanque had made him sub-editor of the "Examiner", from whose columns a merciless fire was directed against the Lords, the Church, the magistracy, and the ineptitudes of the

1. E.C. - Edward Gulson, July 1837.
2. R.E. Leader, "Life and Letters of J.A. Roebuck", pp. 29 - 30.
3. In November 1830. The first brief offered to him was to defend a man indicted for bigamy; the defence suggested was to shake the testimony of the wife. He declined to go into Court for such a purpose. (E.C. + F. Lewis, 3 February 1841).

Wellington administration, from a popular Radical angle with which Chadwick was not always in sympathy.⁽¹⁾ He had caught the eye of Bentham and Francis Place with a couple of excellent articles on French Medical Charities and Preventive Police, which he had contributed to Blanco White's "London Review", a ponderous quarterly which foundered by its own weight after two issues.⁽²⁾ Before a Commons Committee he had defended his view that the primary object of a police force was the prevention of crime, the detection and apprehension of the guilty being of subordinate importance;⁽³⁾ and he had been

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1. August 1830. He worked for the "Examiner" until November 1833, not always on the most cordial terms with his editor, since the line taken in his political articles was at times at variance with Fonblanque's leaders. "Don't take it ill that I remind you that if you have quarrelled with democracy the Examiner has not", wrote Fonblanque once (29 October 1833), "and partial arguments against the people, and insulting expressions applied to them, are to be avoided. From enlightened Radicals I have many complaints of these things". In another revealing letter (8 February 1832), he writes: "I am much annoyed by your account of what passed with Burdett. If you allow Bentham to dress you in my plumes I beg of you to wear my courage also, and not to fall in with shabby excuses for what requires no excuse at all. Having adopted the paragraph I was responsible for it, and would have admitted of no apologies, and you when invested with my feathers by the Prophet of Truth should have simulated my crow. The idea of Bentham's smoothing down a man he scorns with no measured scorn, is disgusting; nor is it agreeable to think that you representing the Examiner were admitted to courtesy under cover of such propitiatory sacrifices.

"Defend me from my friends I cannot fear my foes," I may heartily repeat. As for Burdett I can hardly bring him under the term of 'friends' for he is the friend of no man who will not prostrate before him".

2. "London Review", vol. 1, No. 1, pp. 252 - 308, 1830:
 "Preventive Police". Ibid, No. 2, pp. 536 - 565:
 "Centralization. Public Charities in France". Of the first Francis Place, who was contemplating a similar article for the "Westminster", wrote (21 June 1829): "You have published our views and I can do little more than republish them."
3. E.C., MS notes "To the Chairman of the Committee appointed by the House of Commons to enquire into the present state of the Police of the Metropolis", 1 July 1828.

prominent in drawing up petitions and Bills for Joseph Hume and Edward Bulwer in their attack on the "Moral and Political Evils of the Taxes on Knowledge", a subject which --- he asserts --- had been first broached in Parliament as "Mr. Chadwick's question".⁽¹⁾

Early in 1831 he met Jeremy Bentham and accepted an invitation to become his secretary. "A queer old Hermit, half gone in dotage, sinking through it into the grave",⁽²⁾ haunted by gloomy dreams and the dread of blindness, the philosopher was still hard at work on his drafts and codifications. Many men of influence and ability had hurried from Queen's Square, their minds illumined by some bright project for setting the world to rights; but Bentham regarded few with more esteem than this stern disciple of his old age. The gentle recluse, devising the widest schemes of benevolence that the philanthropist could desire in the guise of the most hard-headed self-interest that the economist could postulate, tapped some deep spring of feeling in Chadwick which rarely,

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1. E.C. in MS note, n.d., on his own career. He states that his article in the "Westminster Review" on "Taxes on Knowledge" (1827) "was reprinted and circulated, and laid the foundation of the agitation on the question". He was in correspondence with Joseph Hume and E.L. Bulwer, who moved in the Commons on 15 June 1832 the abolition of the duties impeding the diffusion of knowledge; but, significantly, he seems to have had no contact with Henry Hetknerington, the real leader of the agitation, the radicalism of whose "Poor Man's Guardian" was too popular for Chadwick's taste. When he accepted Fonblanque's invitation to join the "Examiner", Chadwick told him that "in consequence of what I wrote on the subject of the newspapers, I have been subjected to much inconvenience and excluded from my sources of immediate emolument". The "Examiner" was almost alone in maintaining that the abolition of the Stamp Duties was essential for the healthy progress of the Press, most of the established papers preferring to support a charge which could be passed on to their readers rather than facilitate the rivalry of cheap papers.
2. Bentham - D. O'Connell, 15 February 1827. "Collected Works", ed. Bowring, vol.XI, p. 2.

if ever, broke the surface in later years. "Bentham was his ideal, his guiding star and had called forth all the tenderness of his nature", writes Chadwick's daughter, "He could not bear the most innocent joke about Bentham's peculiarities".⁽¹⁾ But Chadwick was not the kind of man to become the echo of another, however venerated. When Bentham offered him an annuity if he would undertake to devote his life to preaching the doctrines of Felicitarianism, Chadwick refused the offer, though it must have had its attractions for a struggling lawyer. He always made it clear that he considered his allegiance to Bentham to be narrowly limited. He was exasperated by those who believed that his administrative ideas were drawn from the philosopher, and would point out sharply that writings he had published before those of Bentham showed the independence of his own views --- especially on sanitary questions.⁽²⁾

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1. Marion Chadwick (E.C.'s daughter) - Mrs. Aubrey Richardson, 24 October 1928.
2. "When Mr. Chadwick has entered into any subject, he has professed to have investigated the claims de novo to the extent of his means, and to have based his conclusions upon them, and not upon any preconceived opinions of any school" (E.C., MS notes, n.d., on his own career). It was almost certainly on his insistence that J. Hill Burton put in the following foot-note in his "Benthamiana" (1843), p. 395: "It would be an injustice to that friend of Bentham who has so thoroughly laid before the public the grounds on which Sanitary Legislation ought to be based, to allow it to be presumed that the Constitutional Code contains on this subject anything beyond simple suggestions as to the general subjects to which the regulations should apply. The suggestions might have remained unnoticed like many of their author's other valuable hints. The public owe the full inductive sifting which this subject has received solely to Mr. Chadwick, some of whose remarks on sanitary regulations, written long before he could have anticipated an opportunity of bringing forward his views in an authoritative form, were quoted by Bentham as illustrative matter for the Constitutional Code. See Works, vol. IX, p. 648". When a correspondent referred to Bentham as the author of the Poor Law system, Chadwick professed himself "somewhat taken aback" --- and he forwarded copies of his reports to enable the writer to judge of the "independent nature of the grounds" on which they were based. (E.C. - H.D. Macleod, 19 January 1860).

Bentham, engaged on the "Constitutional Code", his last and most ambitious work, asked his secretary to contribute sections on the functions of a Minister of Public Health and a Minister of Justice, but Chadwick, who had not yet severed his connection with the "Examiner" and was also occupied with his strenuous campaign against the Stamp Duties, was obliged to decline. Turning the pages of the "Constitutional Code", it is not difficult to detect the extent of Chadwick's debt to Bentham; nor is it possible to find a better illustration of the difference between the methods and achievements of the two men. Chadwick, who was no political philosopher, took his theory ready-made and unexamined from Bentham. At the beginning of the "Constitutional Code" Bentham lays down three fundamental principles. The first defines the object of the legislator, which is to secure the greatest happiness of the greatest number; the second states that in individuals "self-regard is predominant", or "self-preference has place everywhere". The business of the legislator is to reconcile the first principle with the second, to build the structure of society upon a psychology of atomic individualism; and this is to be effected by the third of Bentham's principles, the "means-prescribing, or junction-of-interests-prescribing principle", according to which the laws and administration of the community should be consciously planned to ensure that in pursuing his self-regarding activities the individual must promote the welfare of his fellows.⁽¹⁾ The "Constitutional Code" is thus a beautifully constructed mechanism of checks and incentives for the organisation of a mob of conflicting egoisms. Here is the theory implicit in Chadwick's administrative reforms, the justification for endowing the State with indefinitely extensile powers to ensure that the interests of the individual and the ends of society shall be

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1. "Constitutional Code", I Section II, First Principles Enumerated.

identified --- the justification for aggressive Government action to protect factory children and railway labourers; to supply a legal minimum of relief for the able-bodied pauper and institutional care for the sick, blind, and aged; to put under public regulation the supply of water and gas and the burial of the dead; to root out the corruption of parishes and municipalities and Improvement Commissioners, and the nepotism and patronage of central departments; to destroy, adapt, create institutions as the principle of utility might dictate. Here also are the blue-prints for the Utilitarian State --- the new Ministries for Health, Education, Justice, Indigence Relief, and Interior Communication; the administrative areas prescribed by technical necessities not historical sentiment; the officials selected for their tried and proved "appropriate aptitudes". Here are the powerful central departments, supervising, initiating, and inspecting, publishing regular reports on their activities, collecting statistics and information from the localities, vigilant for every opportunity to exercise their "melioration-suggestive" functions.

In its astonishing prescience, its inexorable detail, and its neat joinery of efficient means to useful ends, the "Constitutional Code" is the most sustained and fruitful effort of the practical imagination in the literature of government. But that it is a work of the imagination should not be forgotten. It is limited by what Bentham could see and hear from Queen's Square. It is limited by the emotional prepossessions of a philosophical recluse of upper middle class origins, comfortable in his means and his habits, remarkably equable in temperament, who seems to have felt no stronger passion than a kind of intellectual irritability at the twisted logic of his opponents. The observation and experience of one man, even a man of genius, ^{form} is too narrow a foundation for the massive edifice Bentham built upon them.

In some of his suggestions there are, in consequence, as Graham Wallas has remarked, an odd "combination of ingenuity and ignorance". (1) Bentham grounds his views on Civil Service reform, for example, on the theory that the applicant with the greatest fitness and relish for the service will be prepared to work for a lower remuneration, and may even be willing to pay for the privilege; and he recommends that those candidates who had been adjudged competent by an Examination Judiciary should be allowed to bid for the vacant office, offering either to work for a smaller salary or to pay the public for the permission to serve it.⁽²⁾

A philosopher at his desk could in this way erect on paper his construction of pure intellect, building course by course from a priori foundations. He could postulate a Health Minister, ranking in importance before the Foreign Relations Minister, the Trade Minister, and even the Finance Minister, and endowed with whatever powers his philosopher-creator might wish to give him, from the supervision of medical officers of the Army, Navy, and Indigence Relief departments to the maintenance of hospitals, lazarettos, and laboratories, and the inspection of prisons, madhouses, schools, poor law establishments, and shops for the sale of drugs and surgical instruments. This ideal Minister would, of course, be armed with "aqua-procurative" powers, and powers to regulate the quantity, quality, and "proportionality of distribution" of water supplies. He would be charged with a comprehensive range of minutely defined duties --- a "malaria-obviating" function, involving the inspection of mines, sewers and drains, burial grounds, theatres, and lands covered with stagnant

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1. "Bentham as Political Inventor", "Contemporary Review", March 1926, pp. 315 - 316.
2. Bentham's ideas on the Civil Service are contained in a series of papers collected under the title of "Official Aptitude Maximized, Expense Minimized" and in the "Constitutional Code", II, secs. 9 ff.

water, and the control of smoke and effluents from factories; a "health-regarding-evidence-elicitative-and-recordative" function, involving the collection of reports from Local Registrars, hospitals, and the establishments under the various Ministries; an "appropriate-publication" function enjoining that the "utmost publicity" be given to the activities of the Ministry of Health.⁽¹⁾ It was Chadwick's task to test these a priori recommendations against the evidence, to work upwards from the day to day facts of social ills, and to find in actual case histories the arguments to convince ratepayers and editors and Ministers of the Crown. "I may observe", he says, "that in my service I have never followed any one, not even Bentham, but have deduced my conclusions not even from Bentham's but solely from close and important collections of evidence".⁽²⁾

Perhaps he protested too much, perhaps he owed more to Bentham than he would admit, for ideas which were his by adoption he would sometimes look upon fondly as his own

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1. "Constitutional Code", II, sec. X. Some public health duties are also given to the Preventive Service Minister (ibid. sec. V); thus, by Art. 3 he is to prevent the ill effects of
 - "4. Disease and mortality, the results of unhealthy and unmedicated situations.
 5. Unhealthy employments, the unhealthiness of which is capable of being removed or lessened by appropriate arrangements.
 6. Contagious disease".
2. "On the Evils of Disunity in central and local Administration" (1835), p. 2, foot-note. Cf. the article by Professor Masson in "North British Review", vol. XIII, pp. 40 - 34 (1850): "From the results of the Poor Law Commission", says Mr. Chadwick himself in a comparatively recent paper, "we might question whether there are any acknowledged principles of legislation, on which it would be safe to act without a close inquiry as to what circumstances there are which modify the principle itself, or limit the means by which effect may be given to it". A very bitter pill, we conceive, such an assertion as this would have proved to Mr. Chadwick's friend, Mr. Bentham, accustomed as the confident old philosopher was, to forward codes of laws to Russia and Egypt and all parts of the world, on the strength of the universality of general principles excogitated in the city of Westminster". (p.55).

children. In truth, however, his real debt to Bentham does not consist of any specific legal notions or administrative gadgets. It shows itself in his hatred of waste and corruption, his healthy suspicion of the wielders of power, and his resolution to introduce system and classification into the public service by applying the Benthamite maxim "always to do the same thing in the same way, choosing the best, and always to call the same thing by the same name".⁽¹⁾

For twelve months Chadwick lived in Queen's Square, nursing Bentham through his last illness.⁽²⁾ Before his death Chadwick laid before him the outline of his Poor Law proposals, "and he was satisfied with the proofs I gave him".⁽³⁾ In his will Bentham bequeathed to his secretary a small legacy and part of his library of jurisprudence, referring to him with affection and hoping that he would continue the grand work of codification.⁽⁴⁾

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1. "On the Evils of Disunity in central and local Administration" (1885), p. 2. The principle first appears, however, in Chadwick's "Sanitary Report" (1842), p. 372.
2. "He committed himself to my entire care during his last illness, and I was with him until he died": E.C. - Edward Gulson, July 1837. One note from this period has survived: "I am very sorry to hear that Mr. Bentham continues so unwell. I shall be very happy to assist you in any way --- and if you should be much fatigued by sitting up or require to be absent and a new face is admissible, I should be happy to do anything for Mr. Bentham from five in the afternoon to as late (or as early) an hour as you like". (Horace Grant - E.C., n.d.) Bentham died on 6 June 1832, with (according to Bowring) his head on Bowring's bosom. Bowring makes no mention of Chadwick anywhere in his biography of Bentham, which, in the words of Leslie Stephen, ("English Utilitarians", vol. 1, p. 225) is "one of the worst biographies in the language, out of materials which might have served for a masterpiece".
3. E.C. - H.D. Macleod, 19 January 1860.
4. Chadwick later presented to University College Bentham's books on French, Austrian, American, Spanish, and Portuguese laws, with the comment "I have been unable to make that use of Mr. Bentham's bequest which I expected and which he then contemplated". n.d.

In 1832 Nassau Senior, knowing Chadwick from his contributions to Blanco White's quarterly as an unusually well-informed student of social problems, invited him to assist the Royal Commission which had just begun its inquiry into the Poor Laws. He hesitated long and anxiously before he accepted the offer. His reputation in his profession was high; John Romilly and Henry Bickersteth had recently asked him to take over the editorship of a reforming journal, "The Jurist", and he was about to offer himself for practice at the Common Law Bar with the prospect of a successful career before him. (1) But Senior had the ear of the Government, and his invitation opened up wide possibilities of Ministerial patronage.

It was no Civil Service fledgling, docile, well-bred, and ignorant, who entered Whitehall in 1832, but an assertive, rather crude young man, with habits of mind already fixed, who for years had been elaborating theories of positive government action and was eager for the opportunity to put them into practice. From the first he was an unwelcome and critical alien. "All those who like Lord Melbourne are for letting things 'shake right', as he expressed it, all those who in the sight of any amount of evil, use the half informed economists' cry of Laissez faire, set me down as mad". (2) "Why can't you leave it alone?", Lord Melbourne would ask querulously when a restless subordinate suggested that something should be done (3); and he embodied the political philosophy of his class in the aphorism, "Every English gentleman may be presumed to possess the ability to discharge the duties of any post which he has sufficient interest to obtain". Patronage, the distribution of places in the public service more or less at random amongst the population by the Fortune's wheel of favour

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1. E.C., MS note, n.d., on his own career. E.C. - J.D. Hardy, 30 March 1852.
2. E.C. - Rev. (Lord) Sidney Godolphin Osborne, 16 April 1847. ("B.G.O." of the "Times").
3. E.C., MS fragment, n.d.

or influence, had bred a race of timid, fainéant officials, who looked with deep uneasiness upon investigations into social evils which must lead to activity on their part.⁽¹⁾ They took the machinery nearest to hand and followed the advice which promised least trouble, clinging to old forms and worn routines to avoid the labour of inventing and mastering new. To them Chadwick was a dangerous eccentric. He was "wild", "unsafe", "visionary", revolutionary even, this man with his ingenuity in devising novel administrative machinery, his expositions of the preventability of disease and crime, and his irreverent scorn for the oligarchic doctrine that the most important qualities of a man are his name and stock. Above all these Government servants, Ministers and departmental heads alike, were alarmed by Chadwick's faith in government. Chadwick, the first great modern Civil Servant with a professional sense of the dignity and proper functions of the public service, set himself from the beginning the task of removing the slur that "Government does everything badly". It was universally admitted, declared Lord Lansdowne on one occasion, that governments were the worst of cultivators, the worst of manufacturers, and the worst of traders. "No doubt", commented Chadwick, "as constituted the English Government is the worst of cultivators of the public lands of which other Governments are the best and obtain the highest rentals, (the worst of manufacturers) of arms and stores, which other governments manufacture in a superior manner, and is the worst of traders in commissariat supplies, expending in the maintenance of one army badly sums for which France, Prussia and Austria maintain double forces!"⁽²⁾

"The torpid hands of Government", was Peel's scornful description when it was suggested that the State should take

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1. G.C. Lewis reported to his father, 11 October 1832, that the Home Office, according to Senior, were "very sulky" at the activity of the Poor Law Commission of Inquiry. "They have set one stone rolling which they cannot stop, and probably will not commit the same error again". ("Letters of Sir G.C. Lewis", p. 14).
2. E.C. - Alfred Price, 15 May 1855.

possession of the railways. Was the administration of the railways by private enterprise so superior in its efficiency? demanded Chadwick. "No department of Government would have been endured, no Government could have stood, which if it had administered them at all had administered them as corruptly and as wastefully as they have been administered by the commercial classes".⁽¹⁾

"I fancy that I have glimpses of a great future, for other times and other men", he wrote once, raising his eyes momentarily to the horizon, "but it is by scientific legislation which can only be attained by special study, special qualifications and great labour".⁽²⁾ Nothing was to be hoped from the "legislation of the great majority of our rulers, who lift their heads aloft above instruction, who praise their own groping in the dark under the name of practice, and abuse as "theory and speculation" all attempts to act upon extended knowledge and aforethought"; such legislation was "a source of continual fumbings and botches; of amendments upon amendments, often producing new evils, and aggravating the evils which they were intended to remedy".⁽³⁾ ~~CHADWICK~~ Utilitarian doctrine in both morals and legislation is founded on the certainty of rock-like principle; and to the confidence which the precision of the Benthamite calculus inspired, Chadwick added a personal conviction as to the soundness of his own reasoning, the purity of his motives, and the objective desirability of the ends for which he worked. Any one who opposed him was running counter to the dictates of reason and ethics; in short, he was either a fool or a rogue, and was likely to be both. "Sir", he remarked with a truly Johnsonian grandeur to young Lyon Playfair, "the Devil was

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1. E.C. - ?, 25 April 1857.
2. E.C. - Andrew Boardman, n.d.
3. E.C., MS fragment, n.d. (probably 1854 - 1855).

expelled from heaven because he objected to centralization, and all those who object to centralization oppose it on devilish grounds!"⁽¹⁾ He showed only too plainly to the world that he smelt brimstone whenever he met a disciple of M'Groudy, or a paralysed official of the do-nothing school, or one of those "popular politicians who deem every measure for the relief of human pain visionary and the promoters of them impractical, who deem those sanitary measures which are beyond the power of individuals and are not within the capacity of any local administrators to be beyond the province of Government or legislation: - whose notion of duty in respect to governments is that it is an object of patriotism to make them impotent, and making them impotent see no need of special qualifications for administration, and with whom every salary is money paid for no work, and all appointments patronage and mere waste".⁽²⁾

'Laissez faire' in economics was the obverse of Melbourne's "leave it alone" in government, and Chadwick's advocacy of positive government action was logically combined with a rejection of the orthodox economic theories of the day. When he began his Poor Law inquiry economic science was a remote, deductive, Ricardian structure, proceeding from premiss to conclusion with the inevitable progress of a geometrical proof. He first abandoned the method, and then found himself abandoning the principles and the deductions from them. As he explained in an address to the Political Economy Club:

"If there be a tendency observable in the progress of political economy, it seems to be that of getting into two schools or sects --- the hypothesists: the school of reasoners from unverified or imperfectly verified hypotheses called principles: and the school of facts, those who prefer inductions from facts incomplete as they may be, and difficult as it may be to examine them and make a complete induction from them.

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1. W. Reid, "Memoirs and Correspondence of Lyon Playfair" (1899), p. 64.
2. E.C., MS fragment, n.d.

I avow my preference for this method unattractive as it may be: at the expense of being classed with those people called matter of fact, who stick to whatever facts they can get, however few. The school is unattractive, for it is very laborious, there is much drudgery about, much digging and sifting, and much to weigh and examine and much to throw away, and after all not much to shew, or what may be shewn is commonly in the unattractive form of figures like the results of an analysis.

Whereas any one may at his ease imagine a conjunction of facts, no matter whether they occur or not, deduce consequences from them, and call the result a principle.

There is not only ease but simplicity in working with hypothetical cases. You can at once get it in whatever shape wearing the appearance of system you please. Opponents seeing that your hypothesis is possible, do not encumber you with questions as to its probability, and your premise being got by admission your conclusions needs must follow.

My principal objection is to this practice of using unverified hypothesis --- That we are apt to imagine and to use conjunctions of circumstances which never do occur as assumed and from them deduce consequences which never do happen as deduced, and never will so happen.

In fact that, if we do not guard ourselves we may get into discussions about as useful as those of the schoolmen as to how many angels could dance on the point of a needle.

It is possible to do more, however, than idly amuse: to mischievously misdirect human attention: to excite false alarms to give extreme pain: to aggravate human misery by deducing it upon hypothesis to be irremovable....."(1)

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1. E.C., "Population Question. Two schools of political economy: the geometrical reasoners and the reasoners from facts", MS draft, c. June 1845. Chadwick elsewhere ("On the Principles and Progress of the Poor Law

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This is the note which is sounded time and again in Chadwick's reports and correspondence --- the scorn for statesmen and administrators who continually arrived at practical conclusions in incredible ignorance of the grounds on which they could safely be made; the insistence that legislation must be founded on an ample induction, an inquiry safeguarded, as in a scientific investigation, by every security for the attainment of impartial and objective truth. The proper place for the economist or administrator, who was preparing the ground for legislative action, was in the street and workshop not the study or Government office, getting first-hand acquaintance with the problems and persons to be dealt with, not viewing them dimly through a mist of words and preconceptions. What Chadwick thought of an investigating body which sat round a table in London and listened to paper evidence and the representations of selected witnesses, he revealed in a pungent letter to the chairman of a Royal Commission which had been trespassing without due deference in a field he regarded with a proprietary eye. "You have been dependent upon what others bring before you. The merit of my procedure for investigation is, that I have the least of such dependence. I do not only the work of an attorney but the work of an attorney's clerk. I have gone to see the places myself and I have cross-examined the witnesses there on the spot".⁽¹⁾

It is clear that he would have had no very high opinion

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(continued from previous page) Amendment Act", "Edinburgh Review", July 1836, vol. LXIII, pp. 437 - 537) criticises Nassau Senior's definition of the subject matter with which the political economist deals: "his premises consist of a very few general propositions, the result of observation, or consciousness, and scarcely requiring proof or even formal statement, which almost every man, as soon as he hears them, admits as familiar to his thoughts, or at least as included in his previous knowledge" (N. Senior, "Political Economy", p. 3).

1. E.C. - Lord Bramwell, (Chairman of Royal Commission on Metropolitan Sewage Discharge, 1884 - 5), 3 March 1885.

of the procedure of most of our recent Royal Commissions and departmental committees. The method he recommended was that of an open inquiry by a Commission of experts, circulating detailed questionnaires and conducting local inquiries by itinerant investigators. By such inquiries the curious compound of conjecture, prejudice, and arbitrary assumption which went by the name of political and economic theory would be replaced by a body of scientific knowledge, based on experiment, accurate observation, and verifiable evidence. There would no longer be justification for the dangerous inaction of Governments, which was the result partly of an honest bewilderment about the nature of the evils and the means of remedy, partly of apprehension about the public attitude to any proposals that might be made. A full and explanatory report from the Commission would supply all the facts necessary for the framing of legislation and the conduct of Parliamentary debate; while the public inquiry, giving opportunity for all parties to be heard and all objections to receive their due weight, would ensure that the will of the country had been consulted --- and instructed also, since the education of opinion by the inquiry was as important as the exploration of the facts. (1)

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1. Cf. "A paper on the chief methods of preparation for Legislation read at a special meeting of the Society for Promoting Amendment of the Law", 1859, *passim*.
E.C. - Nassau Senior, 30 July 1834: "My experience would warrant me in stating that any one who prepares such measures will often find that the express enquiries of other persons are inadequate or unsatisfactory either for his own Guidance or for justifying the measure to the public; and that hearsay evidence is the less satisfactory in proportion as the object is to prepare any measure of immediate and detailed application".
E.C. - J. Hill Burton, 3 June 1844: "the collector of the information, the investigator who if he is fit for anything should investigate to definite legislative conclusions and to the operative words of the law, and the draughtsman and indeed the supervisor of the execution of the law until (at least) it has got into "semi automatic" and routine operation must be for finished work one and the same person".

The value of Chadwick's influence in the field of social investigation during the twenty two years of his official career can hardly be over-estimated.⁽¹⁾ His methods were not original. John Howard had made the round of the prisons with measuring tape, weighing scales, and notebook, and had refused to take any statements on hearsay, seeking to confirm everything by cross-questioning keepers, turnkeys, and prisoners; Bentham had laid it down that legislation is "an affair of observation and calculation"⁽²⁾, and that it should be based, not as hitherto "upon the quicksands of prejudice and instinct", but "upon the immoveable basis of sensations and experience"⁽³⁾; the Poor Law inquiry of 1832 - 1834 was conducted, probably at Lord Brougham's suggestion, by itinerant Commissioners, as was also the inquiry of the Municipal Corporations Commission of 1835. But the full development of the method, and in particular its use as an instrument to defeat the opposition of doctrinaires and of entrenched interests, is peculiarly Chadwick's achievement. In addition to the models afforded by his own unequalled series of reports, he was ready with guidance to other investigations, such as, for example, the Children's Employment Commission of 1840. And, under the General Board of Health, the procedure of preliminary inquiry in the locality was used by Chadwick's Inspectors to clear the ground for the application of the Public Health Act.

For Chadwick everybody had his story, his facts, his fragment of experience, with lessons to instruct the acute and sympathetic investigator. The working class housewife could tell him of her market purchases, the quick succession of her

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1. "Many writers, whose merely deductive and indeed long refuted doctrines on economic subjects are still discussed by the modern annalists of political economy, habitually ignore Dr. (sic) Chadwick's classic labours". A. Wilson and H. Levy, "Burial Reform and Funeral Costs", p.25 f.n.
2. "Theory of Legislation", ed. C.K. Ogden, 1931, p. 10.
3. *ibid*, p. 102.

confinements, her ineffectual attempts to keep her house clean without water and her family healthy in the midst of damp and filth. The young criminal in the prison cell could describe how he fell to the temptations of the flash-house. The gravedigger had stories of the horrors of the graveyards, and the slaughterer in Clare Market could suggest how disease might be spread by nasty feeding. Even the journeyman mason with his ample whiskers could give support to the notion that a beard was not only an addition to manly beauty but also had a utilitarian value as a protection against dust. Chadwick talked to them all, and what they told him went down in his notes, to reappear, perhaps, in some report as buttress to an argument, or as a clinching illustration in a speech or a letter. He let them speak for themselves in copious extracts, and his favourite method in the descriptive portions of his reports was to present his facts in the words of his informants, knitting their accounts together with a few remarks of explanation and comment.

There was usually, however, an admixture, more or less preponderant, of Edwin Chadwick in that evidence. He took a stand on the facts very quickly, sometimes too quickly; he soon made up his mind what he wanted to find out, and he used both the rein and the spur in guiding his witness towards a conclusion he already had clearly in mind. It was not for nothing that he had read for the Bar, and had assisted Brougham in the last case he undertook before he became Lord Chancellor.

(1) The ideal of scientific objectivity which Chadwick set before the social investigator was not easy for any man to attain; for Chadwick himself, with his training and temperament, it was doubly difficult. Charles Garwin had an excellent habit of making an immediate note of every fact which he encountered which seemed at variance with his own theories; because, he said, he was sure to remember those facts which

supported his case, but was likely to overlook the facts he wished to forget. Had Chadwick done the same he might have lost something of that dogmatic self-assurance which at times irritated even his best friends.

Chadwick's aim, then, --- however far in practice he fell short of it --- was to probe with his instrument of impartial inquiry to the ultimate causes of pauperism, disease, and crime, for only when the long chain of causes and effects had been uncovered could the legislator determine at what exact point the hand of Government should descend. The working of his mind can be seen in such a typical letter as the following:

"According to Cobbett poverty is the mother of crime, according to prisoners and to prisoners' counsel all is from distress. "Why did you commit this crime? I had nothing to eat. Why had you nothing to eat? I was out of work. Why were you out of work? because my master had nothing more to do for me and discharged me". But we are not to stop there: send for his employer, ask why he discharged him: send to his friends per chaplain: ask the police who were his connexions and what were his antecedent habits of living and then facts of a totally different complexion come out in the majority of cases, except in the case of beggars' and vagrants' children who inherit the sins of the parents. It is only by laborious enquiry case by case over large numbers and in different places that the real truth can be made out, or safe general conclusions be established....."(1)

Revolutionary conclusions emerged from this close examination of the facts. Summing up the lessons of a quarter of a century spent in continual investigation, Chadwick declared that "the results of every one of these inquiries was to reverse the largest main principles on which the Government and Parliament and the economists, professional persons and the public at large had adopted as requisite and were prepared

to legislate. The results obtained were most of them new to myself as well as to my colleagues".⁽¹⁾ In controversy this close acquaintance with the facts gave Chadwick the moral and intellectual ascendancy of the man who had been and seen for himself. "John Stuart Mill always deferred to me on any question I had examined because as he said, I always got my information first hand, whilst he could only get it second hand or from books".⁽²⁾ He would ask acquaintances round to his house at Stanhope Gate for a "little sanitary chat", and over breakfast or an early dinner would submit them to his "inquisitorial thumb-screw", as one visitor described it with rueful admiration.⁽³⁾ Not that the flow of information and experiences went all one way; he gave better than he got; and he was always ready with advice to the Chairman of the Board of Guardians who wanted to tighten up the administration of his Union or the enlightened land-owner who was thinking of putting up some improved cottages for his farm labourers. If you were in doubt about the right depth to lay tiles for drainage, or wanted the name of a man who would plan a farm or a cemetery on the most approved models, or were at a loss for a set of clauses for a Bill or some telling figures for a speech, Chadwick could be depended upon to help. If he did not know, he could always put his hand on somebody who did. "You know all the clever fellows and who can do everything better than anybody else", wrote James Morrison, in difficulties with his Railway Committee.⁽⁴⁾ "Whenever I see a stupidity going on, I think of you, of course as you can imagine it", said a German economist, "because you are the man to bring the proper remedium".⁽⁵⁾ Altogether, as John Mill remarked, there was nobody quite like Chadwick for being practically useful.⁽⁶⁾

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1. E.C., "Representative Reform; jottings down of a letter on a commission", MS, n.d., c. 1859.
2. E.C. & Lord Bramwell, 3 March 1835.
3. George Sumner - E.C., n.d.
4. James Morrison - E.C., 22 March 1845.
5. F. Garnier - E.C., n.d.
6. J.S. Mill - E.C., 1846.

CHAPTER 2.SOMERSET HOUSE.

To the Commissioners, engaged in unearthing the abuses of the old Poor Law system, Chadwick was presently indispensable; and his colleagues, uneasily turning over the fragmentary and inadequate schemes which had so far been devised, listened with relief to a voice which spoke with so confident a note of authority. At first he ranked only as one of the twenty six Assistant Commissioners, but it was not long before he was invited, at the unanimous request of the Commissioners, to become one of their number. When it was decided to publish in 1833 extracts from the evidence to prepare the public for the recommendations of the Commission, the selection of material was left to him.⁽¹⁾ As a conspectus of their attitude to the problem it is hard to better the entry under "Paupers" in the index to that volume:

"Generally worthless and profligate

Mostly made so by improvidence and vice

The chief receivers of donations from charitable institutions and charitable ladies on whom they impose

Receiving allowance frequently, much better off than the soldiers

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1. "Extracts from the Information received by H.M.'s Commissioners, as to the Administration and Operation of the Poor Laws", 1833. "Mr. Chadwick's Report from London and Berkshire" occupies 139 of the 410 pages of reports from the Assistant Commissioners (pp. 281 - 2339). "In framing the report published in the volume of Extracts I had put forward such an exposition of the evils as I thought would best suggest the practicable remedies and prepare the public mind for their reception": E.C. - Nassau Senior, 30 July 1834.

Generally made so by vicious habits, and not by unavoidable causes

Made by lying-in hospitals, soup kitchens, blanket societies, and permanent charities

The originators of riots and fires in Sussex

In Sussex looked upon one who had been hanged for incendiarism as a martyr, exhibited him in his coffin, and subscribed for his family"

And so on, building up a picture of the pauper family, demoralised and workshy, imposing on magistrates, defrauding the charitable, simmering with discontent, and transmitting the taint of laziness and turbulence to their prodigally conceived offspring.

The most influential figure on the Commission was the urbane Oxford professor, Nassau Senior, the Maynard Keynes of his day, to whom the Government looked as the leading interpreter of the science of Ricardo and Malthus. When Chadwick joined the inquiry, Senior had not conceived any practicable way of offering relief to able-bodied paupers which would not bring all the demoralisation of Speenhamland in its train; and, as a draft of 1831 reveals, he could see in consequence no remedy short of a heroic surgical operation to cut away in its entirety the corruption of the allowance system.

(1) Nor had he formulated any suggestions as to the machinery of administration. By September 1832, however, Senior was (2) urging on the Government the introduction of the workhouse test; and in a letter to the Lord Chancellor in January 1833 he outlined proposals for a central Commission of three, a body of itinerant inspectors, paid overseers, and compulsory Unions of parishes. (3) In brief, Senior had capitulated to Chadwick's

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1. M. Bowley, "Nassau Senior and Classical Economics" (1937), p. 317.
2. *ibid*, p. 317: Senior - Lord Chancellor, 14 September 1832.
3. *ibid*, p. 319: Senior - Lord Chancellor, 7 January 1833. Senior here observes, "A year ago, or even six months ago I should have laughed at the proposal of making it ~~either~~ any other than a parochial charge".

arguments that a legal provision of relief to the able-bodied paupers was necessary, and that it could be given in a form which would neither undermine the character of the recipient nor sap the position of the independent labourer; and, further, Senior had adopted unreservedly Chadwick's administrative scheme. Chadwick's energy and self-assurance, his bold prescription of remedies, and the weight of evidence he had assembled with extraordinary rapidity, had all worked with the utmost success on Nassau Senior, who possessed, as Miss Bowley has shown, a flexibility of outlook which belies his reputation as a doctrinaire of the laissez-faire persuasion.⁽¹⁾

Chadwick was now asked to prepare "the heads of a Bill, or the outline of the Machinery for the amending the administration of the poor laws, founded on the principles which I had suggested, and in some degree evolved from the Witnesses on their examination".⁽²⁾ "I may observe (what is important to bear in mind)", he wrote later to Nassau Senior, "that you had found it impracticable to deduce a plan from the Reports of the Assistant Commissioners. The course of investigation which I had taken, had brought me in Contact with the great majority of persons by whom improvements had been carried into effect, or who were distinguished by their knowledge and ability in the administration of the existing systems and put me in possession of the best evidence on the subject. When you imposed upon me this most important task, I had a carte blanche. Plans had been previously submitted to the Board, but an examination of them will show that they were fragmentitious, that they contained scarcely one clear principle of legislation, or any thoroughly sound and well defined rule of administration"⁽³⁾

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1. M.Bowley, op. cit., p. 237.
2. E.C. - Nassau Senior, 30 July 1834.
3. *ibid.* Bowley (op. cit., pp. 317, 321) seems unduly reluctant to give Chadwick credit for the conversion of Senior. This letter makes it clear that the scheme submitted to the Government was based on Chadwick's principles; and it is most unlikely that Senior received quite independently an identical illumination.

From the outset Chadwick was in revolt against the principles on which philanthropists and economists had hitherto based their attitude to pauperism. He rejected out of hand the thesis of the evangelicals, voiced eloquently by Dr. Chalmers, that all statutory systems of relief were pernicious, and that public doles should be replaced by the alms of the charitable. "The work is too great for any charity", he said.⁽¹⁾ He rejected with equal scorn the sentimental paternalism of the country magistrates, which would bind the labourer in perpetuity to the thralldom of the parish pay-table. "Indeed, their conception was that the poor man --- the agricultural labourer --- "must be poor" --- must have a lifelong support on parish doles --- must have his relief as a parish pauper --- that his future was a parish poorhouse, and when he died he must have a parish funeral in a pauper's grave. The condition was sad, but one that could not be altered, and the evil must be endured".⁽²⁾ But his main battle lay with the "hypothesists", who had maintained that "all inquiry was superfluous for that the real and all pervading cause was the pressure of population beyond the means of population".

"The measure for immediate alleviation was an extensive emigration. In that sense Mr. Senior wrote and Mr. Wilmot Horton lectured.

The only real effective remedy it was stated by Mr. Ricardo was such a course of legislation as tended to their abolition.

On these views, or in this sense some of the leading statesmen, who were prepared to do anything more than to correct incidental grievances were prepared to legislate...."⁽³⁾

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1. E.C., "Notes for a speech at Leicester", MS, August 1843.
2. E.C., "For consideration of the comparison of Liberal with Conservative Legislation and Administration, affecting especially the Wage Classes", n.d.
3. E.C., "Investigation. Popular opinions negatived by as to poor laws", MS, n.d.

From their a priori law of population, the economists went on to deduce that the labour market was saturated, and that the paupers had been squeezed out by the competition of their fellow workers. Look at the facts, retorted Chadwick, and observe that they in no way bear out this grim picture of a population pressing right up to the margin of subsistence, and in their struggles pushing the less fortunate over that margin into the gulf of starvation and misery. Conversations with aged labourers in the country parishes convinced him that as a class they had greatly improved in condition; that their real wages had risen, and were still rising; that their expectation of life was greater now than ever before. (1)

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1. Cf. E.C. - Archibald Allison, 5 August 1840:

"If in the Poor Law inquiry we had proceeded on the supposition or assumed that Mr. Malthus' principles were correct, we should have been led to others, and widely erroneous measures. One large fallacy is, that the pressure has already filled up the field of production. We were told that all were employed for whom employment was to be had; we were referred to the lists of able-bodied paupers --- to the increasing list of able-bodied paupers, as the numbers, of persons, who were surplus, and we were told that emigration was the only remedy, and that it was folly to think of workhouses or any other. If by offering out-door relief, or driving able-bodied paupers by any other means to seek their own subsistence, and compete in the labour market; since the labour market is already full, what other effect can the competition have than to depress much more the condition of the independent labouring class.

By good fortune the power was obtained and wages did not fall, but rose in consequence of forcing the able-bodied paupers into the labour market The rationale of this increase of production, may be said to be, that the labourer goes into the market as a producer, rather than as a competitor. In the county of Suffolk, before the change took place, there were upwards of 30,000 able-bodied persons on the Poors Rates; the great mass of them has been cleared off. On the presumption of a vast available surplus in that county and in Norfolk, ships were prepared, and government emigration agents sent into those counties by the Agent General for emigration; I believe however they scarcely succeeded in getting a dozen families out of the two counties to emigrate; nor do recruiting officers, nor masters of ships, nor large

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True, there were dangerous congestions of pauperism in particular areas, but there was no general surplus over the country as a whole beyond the average demand for employment throughout the year. The existing mass of pauperism, in fact, was not a disease attacking the very structure of society, but merely a disorder of its functions, which could be corrected by a proper regimen. If the attractions of relief were lessened by cutting it to subsistence level and accompanying it by an irksome discipline; if it were made impossible for farmers to get cheap labour at the public expense, and for landlords to have their rents paid and shopkeepers their bills by subsidies from public money; if the area of the labour market were widened by tearing down the fences of the Settlement and Apprenticeship laws, and by encouraging the migration of labourers from the heavily pauperised South to the industrial North --- if ~~all~~ this were done, asserted Chadwick, all those apparently surplus labourers would be rapidly

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(continued from previous page) employers of labour of any sort, nor emigration agents now practically find any surplus of able-bodied labourers, except of such whose views render them ineligible for employment, or persons under peculiar and anomalous circumstances. The large fallacy of the field of production being full, which is usually adopted by Mr. Malthus' friends, is too frequently accompanied by another fallacious conclusion as to the existence of a large amount of unavoidable misery, which must necessarily occur, and by assumption of progressive deterioration. The close inquiries I have made from very aged labourers from various parts of the country establish the fact of the improvement of their general condition, instead of their deterioration, concurrent with the increase of population".

Chadwick, who met Malthus at the Political Economy Club, asserts that he had begun to modify his opinions on over-population before he died (E.C. - Macvey Napier, 15 June 1836; Macvey Napier Papers, vol. VII (34,617), f.458). There is a quite incorrect impression that Chadwick was a disciple of Malthus (Dr. Gilbert Slater, for example, describes him as "eager for the Malthusian principles of the Royal Commission's Report": "A Century of Municipal Progress", p. 339.) Chadwick, in fact, lost no opportunity to combat Malthusian doctrine, both in Poor Law and in sanitary questions.

absorbed into productive employment.

There remained those who were too young or too old for work, or who were unemployed through sickness or some temporary dislocation of the industrial machinery. For their benefit Chadwick proposed that, under the control of the new Union authorities, "the rudimentary charities of a civilised community"⁽¹⁾ should be legalised and given the strength and efficiency of large-scale organisation. In view of the later lapse into the horrors of the General Mixed Workhouse, it should be emphasized that Chadwick wanted not a single penal establishment, but a series of specialised institutions, and that, in fact, he urged that the justification for combining parishes into Unions was less the economy in administration than the opportunity it afforded of separating the various classes of paupers for differential treatment. "Thus, when a town, which contains four or five parishes, each with its respective workhouses, is incorporated, each house may be exclusively appropriated to a particular set of paupers. The old and impotent might be placed in one house by themselves;

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1. The phrase occurs in a MS draft, "Notes on the retirement of Mr. Nicholls from the Poor Law Board", n.d., which reviews Nicholls' efforts to introduce the new law into Ireland between September 1838 and November 1842. "The new union house comprehended organisation of the rudimentary charities of a civilised community: it comprehended an orphan asylum and an industrial school, an alms house for destitute widowhood, a lunatic asylum, a hospital, a place of work, and an institution to give the assurance to the labouring classes that whatsoever changes might be made in the industrial arrangements of the country, they should be secured from perishing outright. The Union house was designed to collect the scattered wrecks of humanity, to place all whom it might be practicable to place in a course of productive industry and independence, to relieve the public from the spectacle of misery, and from the tax of mendicancy, and to alleviate the misery that was found to be irretrievable. It was proposed as sound economic policy, as well as legalized charity on the largest scale, as a foundation for the good police and civilisation of the country".

the whole of the pauper children may be placed in another house; the able-bodied females may be placed in a third of the workhouses, and the able-bodied males may be placed in the fourth house, the best adapted for discipline and regulation. Each class may then receive an appropriate treatment: the old may enjoy their comforts, the children may be educated properly for service, and discipline and rigour may (not by the Legislature or the Government, but by the Commissioners' regulations) be concentrated, to stop the influx of pauperism from the able-bodied⁽¹⁾

Great, half-formed plans, for government action to an extent never before contemplated by practical statesmen, flitted through Chadwick's mind as he worked over the evidence. "The main measure propounded, for execution by a reorganised local

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1. E.C., "Measures proposed with Relation to the Administration of the Poor Laws", quoted in "Health of Nations", ed. B.W. Richardson, vol. 2, pp. 354 - 5. Richardson records Chadwick's comments on the policy adopted by the Poor Law Commission: "It was believed by the Commission (i.e. of Inquiry) that the amendment of the vestral administration, by the separation of their mischievous admixtures, and by providing for each class separate buildings, would be a great and lasting reformation. For the children it would provide separate schools away from the influence of the depraved paupers; for the old and infirm, institutions of the character of almshouses; for the sick, hospitals; for the lunatics, the blind, and the idiots, proper establishments; and for the able-bodied and the vagrants a distinct suitable building. But all this plan was overborne by one started within the Executive Commission of treating the separate classes in separate wards of the same house, under one chief manager. The separate system was the most difficult. It required services of specialists in administration which could not readily be obtained. For the treatment of the pauper children by school teachers on the mixed physical and mental training, the teachers had then all to be trained. For the aggregation of cases for the purpose of segregation and the special treatment of the segregated cases suggested by Mr. Chadwick, undivided individual power was requisite. But he had none. All the Assistant Commissioners --- lawyers and soldiers mostly --- went in for the Union house, and he was driven to adopt it".

administration was one of repression, the cessation of a mischievous form of relief, outdoor relief as a general rule, and relief in aid of wages which operated most perniciously upon the labouring classes, chiefly in the rural districts. A collateral measure of repression was requisite, to be directed against vagrancy, and mendicancy, involving much juvenile delinquency, and for this it remained to be expounded that the agency of an organised police force which did not then exist (was needed). But an exclusively repressive policy, however completely carried out was in my view a narrow and inadequate one, and I had collected evidence, and had in preparation measures of prevention, one of which was a general system of mixed physical and mental training or elementary education for the children of the wage classes which as commissioner of enquiry on the labour of young persons I had got introduced into the first factory act, of which I had the preparation. Bishop Blomfield who saw the evidence I had elicited was specially anxious that I should complete this topic. Another leading measure of the prevention of pauperism was the prevention of excessive sickness, premature disability to work, and premature widowhood and orphanage, arising from the excess of disease, preventible by sanitary measures. I had opened up this topic in my own reports as one of a great measure of prevention. I pleaded for further time, another year, to bring these subjects forward in their due place, in a complete measure. But the Commission and the assistant commissioners all of whom, myself included, had given a great deal of gratuitous labour were unprepared to give more attention to them".⁽¹⁾

In the final Report of the Commission of Inquiry, the abuses of the old system were described by Nassau Senior, while to Chadwick was assigned the exposition of the remedial measures, with the important exceptions of the sections dealing

with Bastardy, Settlement, and Emigration, which were drafted by his collaborator.⁽¹⁾ Between the impatience of the politicians and the contentiousness of the Commissioners, Chadwick's scheme was bungled. He had pleaded, as we have seen, for more time, for another twelve months; but Lord Melbourne (under the impression, Chadwick observed, that a few weeks were sufficient to work out the principles of a revolution in the largest branch of public administration) was continually sending word over to Whitehall Yard that he could not understand why the Report was so delayed. Chadwick had hoped to draft the Bill himself, but the Government, finding that they could not wait until his speculations came to birth, put the preparation in the hands of an attorney and three counsel.⁽²⁾ Only parts of Chadwick's ambitious project, therefore, found their way into the Report, and were later passed into law --- notably, the machinery of the Central Board, with its itinerant Assistant Commissioners and its powers to extend uniform regulations to

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1. B.C. - Edward Gulson, July 1837. This is the clearest statement we have of the respective contributions of Chadwick and Senior to the 1834 Report. Senior later claimed that "three-fourths of it was written by me, and all that was not written by me was re-written by me". In a letter to Lord Melbourne, 30 June 1834 (Senior MSS), he describes Chadwick as "the principal framer of the remedial measures in the Report, and the sole author of one of the most important and difficult portions, the Union of parishes" (S. and B. Webb, "Old Poor Law", vol. 2, p. 56).
2. E.C. - J. Hill Burton, 3 June 1844. Chadwick had intended to make his part of the Report an exercise in Benthamite legislative method. He would have given, he said, "First the exemplificative matter --- the facts and instances of the evils requiring remedy.
Then the ratiocinative and expositive --- the premises to

The enactive matter or conclusions".

"I intended to conclude in the precise terms of the intended bill". Traces of this intention are to be seen in the Report, e.g. pp. 261 - 2, the paragraphs in capitals.

all parts of England and Wales; the widening of the areas of local administration; and the cutting off of the mischievous forms of relief. Chadwick never ceased to lament the lost clauses. Unaccompanied by the supplementary preventive measures, the new law took on harsher, more unsympathetic lineaments than he intended; the omissions, he believed, were the chief cause of the irritation which the Act of 1834 aroused, and a major share of his energy in the following years was devoted to the attempt to supply them.

One fact consoled him, as he railed against the vagaries of ministers and bewailed the maiming of his plan. A part of the regulating machinery he had devised was to be erected and set in motion. The Union would be a more effective and economical unit of administration than the parish; though he had misgivings about entrusting it to a committee of amateurs instead of the paid experts he had originally suggested, and a few years later he was calling to mind that "I by no means contemplated the possibility of a correct administration of any law requiring constant regard to rule and principle, by annual, unskilled, and practically irresponsible, and unpaid officers, such as are elected as guardians".⁽¹⁾ More promising still was the central department, from which a vigorous and well-informed Commissioner --- and who more vigorous than the man who had dominated the Poor Law inquiry, or better informed than the principal architect of the new system? --- could plan to push forward the frontiers of beneficent state control.⁽²⁾ Confidently Chadwick awaited his reward from a grateful Government.

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1. E.C. - S.G. Osborne, 22 August 1844.
2. Cf. E.C. - Nassau Senior, 30 July 1834: "What I would wish should be clearly understood is, that the investigation of evils and devising of remedies is the Department of my service to which chiefly and almost exclusively any importance can be attached. I fear it may be considered that when the Bill is passed the measure of legislation is carried; although in fact the means only of legislation are then carried; and the most important part of the Task remains to be commenced".

"The only individual among the candidates, perhaps I may say in the country, who could enter into the office of Commissioner with complete prearranged plans of action", Nassau Senior assured his ministerial friends, urging that Chadwick's name should be the first to be considered for one of the three vacancies.⁽¹⁾ A Commissionership at £2,000 a year, however, could not well be bestowed on one who had no social standing and no claims to distinction save his knowledge and ability. As Lord Althorp explained frankly to Chadwick some years later: "When the Poor Law Amendment Act passed, we, the then Ministers, felt that the bringing into operation a law which made so sweeping a change in the whole existing frame of society it was absolutely necessary that every extraneous difficulty should be smoothed as much as possible, and that therefore in the selection of the Commissioners everything should be avoided which would have a chance to raise objections. We therefore first threw overboard all party considerations. We selected a Privy Councillor opposed to us in Politics but who had been Chairman of Committees in the House of Commons on the Poor Laws and who was rightly considered as a practical man of business. We put him at the head of the Commission. We joined with him one of our under secretaries of State, and another Gentleman unknown to us personally but remarkable for having managed in a firstrate manner a considerable district under the existing Poor Laws. I believe that the care we took in making this selection contributed greatly to the favour with which the Act was first received. With respect to yourself we were so much aware of the value of your knowledge of the subject that we were very glad to have your services in the office of Secretary. I must speak frankly, your station in Society was not such as would have made it fit that you should be appointed one of the Commissioners. We felt, at

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1. Nassau Senior - Lord Melbourne, 30 June 1834 (Senior MSS).

least I speak for myself, that as Secretary you would have as much influence as if you were a Commissioner probably a good deal more...."(1)

Thus, it was as a secretary and a subordinate that Chadwick went to Somerset House. He saw the danger at once. Already, with those inflexible notions of his, he had crossed swords with various members of the Commission of Inquiry. In a secretary such contrariness would be unseemly. What, after all, was a secretary? There were secretaries who were merely recording officers, whose duties did not extend beyond a little prim accountancy and letter writing; and others who, like the Secretaries of the Treasury, prepared minutes and measures for the sanction of the Board. Nassau Senior assured his incensed friend, however, that the Government intended an appointment in the larger sense, and that he would be looked upon rather as a confidential adviser than as a mere clerk with no right or opportunity of expressing an opinion. "When your name was mentioned I said that I conceived you to be placed in the Commission rather as a fourth Commissioner than as a Secretary. To which Lord Althorp assented".(2) Fortified by this

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1. Lord Spencer (Althorp) - E.C., 3 May 1841. The letter continues: "I never contemplated that you were to have anything like a Veto upon the proceedings of the Commissioners. I did expect that you would influence them and you have done so. You have as you tell me prevented bad measures from being adopted and suggested good ones which have been adopted. I am bound to say therefore that your position has been and is very much what I expected and intended it should be. Your Station however now is a very much higher one than it was when the Poor Law was passed, you are now well known to the public, no objection could now be made on the ground of Rank in Society in appointing you a Commissioner, and I think that if any Commissioner was to be appointed your claims to the office are extremely great indeed".
2. Nassau Senior - E.C., 5 February 1837. Cf. E.C. - Lord Spencer, 3 May 1841: "I was thanked with Mr. Senior for my services by my co-commissioners of inquiry, and only not recommended by them because my appointment was deemed a matter of course". The "terms" offered to Chadwick by Senior were, of course, not officially communicated to the Commissioners.

assurance, Chadwick took up his position with a very superior view of the scope of his duties. The collision of temperaments between Chadwick and the Commissioners was aggravated by this underlying constitutional wrangle whether a secretary should be simply seen and not heard.

"A man made for the place", Lord Althorp told Chadwick with enthusiasm when he broke the news of the appointment of J.G. Shaw-Lefevre.⁽¹⁾ Certainly "a gentlemanly person of engaging manners",⁽²⁾ thought Chadwick; "but about as fit to act for the poor law as a delicate girl would be to assist in performing an amputation."⁽³⁾ Member of a Whig family, Senior Wrangler and Fellow of Trinity, a brilliant linguist with first-hand knowledge of Europe, Shaw-Lefevre had enjoyed all the advantages of birth, education and patronage that had been denied to Chadwick. He got on well with the Secretary, as he got on well with everybody; but Chadwick mistrusted amiability which too easily softened into compliance, and in his eyes social qualities did not make up for lack of special knowledge, and the stiffening that came from the conviction that one was holding firm to right principles. "Everything was new to him; a labour-rate or a roundsman system, provided it had not a dyslogistic name attached to it".⁽⁴⁾ At the Colonial Office, Chadwick heard, he had been known for his extreme timidity and vacillation, any shadow of opposition scaring him into inaction.⁽⁵⁾

George Nicholls, a country banker and former East India captain, he regarded with more respect. Nicholls had reformed his own parish of Southwell on principles which foreshadowed those laid down in the Poor Law Report; but his knowledge was limited to the parish and parochial machinery, and a published

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1. E.C.- Lord John Russell, 19 June 1841.
2. E.C. e Lord Liverpool, 14 October 1841.
3. E.C., MS fragment, n.d.
4. E.C., "Notes of personal paper", MS, n.d. probably 1847.
5. *ibid.* and E.C. - Lord John Russell, 19 June 1841.

paper of his went no further than a cautious opinion that one or two of the smaller parishes might possibly be formed into Unions. He had a sea captain's estimate of law and lawyers, Chadwick noted drily, and thought everything would go on the smoother and better the less the business had to do with any of them.⁽¹⁾ Earnest and humourless (attending a performance of "Don Giovanni" on one occasion, he was heard to murmur "What a shocking state of society!"),⁽²⁾ he had a profound and narrow faith in the "mitigated kind of necessity imposed on the working classes, by a well regulated workhouse".⁽³⁾

With Shaw-Lefevre and Nicholls Chadwick remained on good terms, despite their differences. The guiding spirit of the Commission, however, was a voluble, positive Welshman, Thomas Frankland Lewis, for twenty two years a Tory M.P., with some experience in minor ministerial appointments, who entered Somerset House "with an express warning from Lord Melbourne against theory and speculation".⁽⁴⁾ He was, according to Melbourne's commendation, "a pre-eminently safe and superior man of business".⁽⁵⁾ A "safe man"! It is the phrase employed by Henry Taylor in his Machiavellian "Statesman", the distillation of long Civil Service experience, to describe the departmental head who attempts by every means and shift to reduce the amount of responsible business devolving upon his office; "by evading decisions wherever they can be evaded; by shifting them on other departments or authorities where by any possibility they can be shifted; by giving decisions upon superficial examinations, --- categorically, so as not to expose the superficiality in propounding the reasons; by deferring questions till, as Lord Bacon says, 'they resolve of themselves'; by undertaking nothing for the public good which

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1. E.C. - J.H. Burton, 3 June 1844.
2. Memoir of George Nicholls by H.G. Willink, prefixed to Nicholls' "History of the English Poor Law", 1898 edition, vol. 1, p. lxxii.
3. *ibid*, p. xiv.
4. E.C. - J.H. Burton, 3 June 1844.
5. E.C. - Lord John Russell, 19 June 1841.

the public voice does not call for; by conciliating loud and energetic individuals at the expense of such public interests as are dumb or do not attract attention; by sacrificing everywhere what is feeble and obscure to what is influential and cognisable."⁽¹⁾ This is, of course, a composite picture, and too sharply etched to be a life-like portrait of Frankland Lewis; but it is certain that in him Chadwick saw personified the do-nothing traditions of the old government service. How could he carry out the new ideas, demanded Chadwick, this man who was a disciple of Ricardo and Malthus, and who had drafted the report of Sturges Bourne's Committee, which proclaimed him a disbeliever in "compulsory contribution for the indigent"?

They hated and distrusted each other on sight. Chadwick, with good reason, thought it futile to expect the introduction of comprehensive institutional provision for the paupers, or any other aggressive administrative action planned to deal with the wider problems of destitution, from one who felt in his heart that these were matters with which Government should not meddle.⁽²⁾ Lewis, for his part, at once showed that he intended to give no elevated status to this dangerous, unpractical visionary. There would be no unofficial Fourth Commissioners while Frankland Lewis ruled at Somerset House. Chadwick, sensitive to every slight, observed that "one of his first acts, for example, was to order for the private room of the Commissioners chairs of a stately sort with leather cushions and mahogany tables, and for the Secretary's room common wood

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1. Henry Taylor, "The Statesman", ed. H.J. Laski, p. 110.
2. Cf. Nicholls' verdict (op. cit., p.xl): Frankland Lewis, "although possessing considerable talent and experience, was yet so much of the old school, and so averse to incur the responsibility of any forward movement, that we had great difficulty in dragging him along; and if he had been permitted to have his own way, we should, I think, have remained almost stationary, instead of making head as we did against the evils for the putting down of which our board was constituted".

tables and cane bottom chairs". (1) When Chadwick expressed an opinion at the Board, it was received frigidly as though a clerk had broken in on the discussion. At one of the earliest meetings Frankland Lewis requested him to withdraw while the Commissioners deliberated. By the terms of the Act, Chadwick protested as he left, the Commissioners were bound to keep a record of their proceedings, and the proper recording officer was their Secretary. (2) For a subordinate it was an arrogant claim; but it was the only ground on which Chadwick could assert a right to be present while the Commissioners discussed and framed their policies; and he had no intention of surrendering without a struggle into the inactive hands of Frankland Lewis the administrative weapon which he had forged, and with which he had planned to assail so many social evils.

From this time onward there poured into the Government a steady stream of protests and remonstrances from the disgruntled Secretary, complaints of the way in which the Commissioners were executing the law, and claims for promotion in recognition of his superior merit and grasp of the subject. He would never have consented to give up his profession for the Civil Service, he declared, if he had not been "grossly misinformed and almost imposed upon". (3) By 1837 he was looking for a means of escape from a position where he must every day see "the progress of the great good obstructed by the operation of narrow and selfish interests and petty animosities". (4) On the eve of the election which followed Victoria's accession he manoeuvred for a week or two for the Malton seat, assuring a political agent that if "I were driven to choose between two extremes: between the Tories and the Radicals of the Cobbettite school; I should certainly choose

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1. E.C. - Lord Spencer, 8 May 1841.
2. *ibid.*
3. E.C., "Notes of personal paper", MS, n.d. probably 1847.
4. E.C. - Edward Gulson, July 1837.

the Tories".⁽¹⁾ Eventually, however, the place was utilised for normal party purposes --- in the days when M.P.s were made by their breeches pockets, there was slender chance for a civil servant who was entirely dependent upon his salary. The extension of the Poor Law Act to Ireland in 1838 brought from him "almost a pamphlet instead of a letter" to Lord John Russell, urging that he be sent as Fourth Commissioner to Ireland, where a reputation as a Poor Law "purist" could hardly be grounds for objection.⁽²⁾

Meanwhile, for good or ill, the new Poor Law was now associated indissolubly in the public mind with the name of Edwin Chadwick. As he complained bitterly to Lord Spencer, while all the Ministers seemed unaware of his services, the agitators against the measure identified the Commission with himself.⁽³⁾ The favourite phrase of Beaumont, the editor of the "Northern Liberator" was that Chadwick ought to be forthwith gibbeted,⁽⁴⁾ while in some parts of Yorkshire the mob vowed their determination not to be "Chadwicked", as they termed being married under the new Registration Act.⁽⁵⁾ It became the most hated name in England as the odium of the Poor Law Bastilles increased.

"The common conclusion was that the Secretary was everything and the Commissioners mere cyphers. One Board of Guardians petitioned in plain terms that the Commissioners might be dispensed with and the business left to be conducted by the "talented Secretary". A large proportion of the correspondence was addressed to me personally, in utter disregard of all form, and as if no such persons as Commissioners existed to be consulted. Some of the letters contained compliments addressed to me personally. Soon after the publication of some evidence

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1. E.C. - Edward Gulson, July 1837.
2. E.C. - Lord John Russell, 10 July 1838.
3. E.C. - Lord Spencer, 25 April 1838.
4. E.C. - Lord John Russell, 1 February 1838.
5. E.C. - Lord Spencer, 25 April 1838.

which I had collected on the subject of education, a paper was read which contained some strong praise of myself. I was not present, but it was stated to me that one of the Commissioners on the reading of an eulogistic epithet in the letter, "jumped up as if a pistol had been fired at him", turned pale, and declared that something must be done to put a stop to it. When deputations of the parish officers attended the Commissioners, they would address themselves to me. Such scenes became so difficult to avoid and so unpleasant to me that I avoided attending when deputations were present. On some occasions when parties have been heard by the Commissioners, they have insisted on seeing me and stating their case to me before they quitted the office. Parties who have seen the Commissioners have, without informing me of that fact, obtained interviews with me, and in some instances different opinions. I was of late compelled to avoid giving interviews to avoid discrepancies and not being willing to explain why I avoided I have unavoidably given offence to the parties"(1)

Such incidents did nothing to lessen the tension between Chadwick and the Commissioners; and while they imputed to him insubordination, an overbearing ambition, and a rigidity of outlook that no experience could soften, he saw in every departure from the line he had marked out in the Poor Law Report jealousy of the Secretary, whose inferior position was a constant reproach to them, and a determination to cripple the measure which was his creation. (2)

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1. E.C., "Notes of personal paper", MS, n.d. probably 1847.
2. "If it had been contrived to blind the judgment of those appointed to administer the law, and make them hate, evade, alter or destroy it, how better could it have been done than by rousing their self-love, exciting powerfully their jealousy by placing in opposition to them one who having devised it, was personally and indissolubly identified with it, and placing him in such a position as to be a perpetual reproach to them? To admit the law to be above them or their conception was to admit him to be in justice above

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"Seeing the deep hold that such feelings had got, that nothing which I could propose would be adopted for fear it should be its success increase this reproach or thralldom, I was compelled to disguise as much as possible the suggestions which it was requisite in the pressing exigencies of business to make. In this view I bestowed additional care on the private instruction and suggestion to the Assistant Commissioners and founded as much suggestion as I could upon their Reports. On one occasion when I had given some suggestions as to regulations to a young Assistant Commissioner on a subject referred to him, and when he brought them forward and read them at the Board, there was a brightening of countenances, and strong and immediate praise to him for the ability of the suggestion. When he unwittingly and ingenuously declared that the praise was not due to him but to the Secretary sitting at the bottom of the table, there was such a change in the expression of the countenances to sour blank, and the scene was so ludicrous that I could scarcely refrain from laughing outright...." (1)

"On one occasion a Commissioner, as it was reported to me, came from a conference with the Minister, bright with an important suggestion which the Minister had made; it was that the Owners of Mines or Manufactories should be charged with the consequences of accidents of maiming or death, which usually fell upon the Poor's Rates, in expences of sickness or widowhood or orphanage. The Commissioner was dilating with

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(Continued from previous page) them, and that they were unworthy of their position. But as it was impracticable to sink the measure in order to sink the person, they had a strong motive which was soon displayed, to make alterations and improvements or qualifications as large as possible, for a capacity to improve or qualify would seem to the public and themselves to justify superiority of position". E.C., "Notes of personal paper", MS, n.d. probably 1847.

1. *ibid.*

admiration at the policy of the suggestion, when Mr. Coode to whom it was communicated with the view to the preparation of clauses, incautiously stated that the suggestion was a favourite idea of mine, which I had advanced as one of the Factory Commissioners. On this unfortunate announcement there was an immediate change of countenance and view of the whole matter, and it was no more heard of. What, or whether any grave practical difficulties were found in its way and told to the Minister, I have no means of knowing, but a favorable opportunity was lost of advancing the discussion, if not the adoption of the most important principle, which has been recently fully recognised in an able Report of the Committee of Inquiry on the condition of Railway Labourers and partially adopted by the legislature in the Accidents Compensation Act brought forward by Lord Campbell⁽¹⁾

Meanwhile, Chadwick found it hard to credit that so excellent a law was as unpopular as the "Times" and the agitators made out. How could the charge of harshness be maintained? Were not wages highest and the condition of the workers most improved where the measure had been most fully carried out, and depression greatest and discontent most widespread where the rates were heaviest and least had been done to abolish the old practices? It was true that disturbing incidents found their way into the newspapers, and some Assistant Commissioners had had alarming experiences. Power had been pursued by wild persons bent upon assassinating him, and had three times been assaulted with serious intent; a party of ruffians had fallen upon a person they mistook for Stevens, and had fractured his skull, so that it was doubtful whether he would recover; Edmund Head had been shot at, and Gulson and Gilbert had been driven from towns by tumultuous mobs. These incidents had been carefully concealed, Chadwick

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1. E.C., "Notes of personal paper", MS, n.d. probably 1847.

told Lord John Russell, lest they "incite insane Minds to imitation" and even "give a most false impression of the unpopularity of the measure".⁽¹⁾ On the other hand, Francis Place, with his close and friendly contacts with the lower classes, wrote to urge Chadwick to greater efforts against lax Guardians. "Pray lay your precious paw, in your quiet, smooth way upon them, and compel them to adopt the Workhouse; and do it perfectly --- never mind their howling --- the more they howl the more you must squeeze them, make them take into the home all the pauper's family --- Father, Mother, and Sue --- don't let them take some in and leave some out, and then, but not till then, will the matter approximate even, to what is wholesome".⁽²⁾

Complete satisfaction with the Act and --- only thinly disguised --- with himself as the author of it, runs through Chadwick's survey in the "Edinburgh Review" for July 1836 of the first eighteen months' working of the Poor Law Commission.⁽³⁾ In the southern districts paupers had been thrown off the rates in droves, and the "surplus" labour had been absorbed as he had predicted; in twenty two counties, comprising 187 Unions, the expenditure on relief had fallen by 43½ per cent.; on the Boards of Guardians the chief occupiers and landowners, yeomanry, gentry, even nobility, were meeting and acting together for public purposes for the first time in history.

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1. E.C. - Lord John Russell, 1 February 1833. Chadwick himself had no fears, as he reveals in a letter to Lord Normanby in 1841: "Regarding the apprehensions of my personal unpopularity I may state that when I have visited the Manufacturing Districts apprehensions have been expressed for my personal safety. But I have gone amongst the working classes; have visited Manufactories and gone into the worst neighbourhoods; have been waited on by leaders of the working men who wished to consult me. Whilst staying in Manchester a leader of the Hand Loom Weavers applied to me stating that hearing I was in town a deputation was desirous of consulting me as a favour on matters unconnected with Poor Laws as they could depend upon me for telling them the truth".
2. F. Place - E.C., 21 April 1835.
3. "Edinburgh Review", July 1836, vol. LXIII, pp. 487 - 537.

In the winter of 1836, however, the Commissioners turned their attention to the industrial districts, and Chadwick's complacency was blown upon by a bleak wind of failure and hostility from the north. Bad harvests, severe winters, influenza, extensive unemployment in the textile industry, the resistance of the working classes (already organised against the Factory Act), all combined to rout the Poor Law Commissioners. It had been a serious error in tactics, Chadwick believed, to deal with the southern counties first; the new system should have been introduced into the northern towns in the first year, while trade was still good and the agitators were otherwise engaged.⁽¹⁾ But not the slightest doubt entered his mind that if the workhouse test had been introduced before depression hit the industrial workers, and if it had been administered with rigid honesty and efficiency, it would have taken the strain of any burden likely to be cast upon it, and would have withstood even the impact of extensive and prolonged unemployment.

Thus, it was to the administrative weaknesses of the Commission and the local authorities that Chadwick pointed in explanation of the swelling figures for poor relief. The rates were still collected and dispensed by annually elected, unskilled, and unpaid Boards, "by small shopkeepers in the towns who dole out out-door relief to be spent at their own shops: by the owners of small tenements who pay their own exorbitant rents in the shape of out-door relief: by farmers who as Guardians in the rural districts still under the cover of exceptions to the prohibitory order pay relief in aid of wages to men with families".⁽²⁾ Such Boards were no better than the parish "jobocracies" condemned in the 1834 report.

Worst blunder of all, in Chadwick's view, had been to

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1. E.C. - Lord Normanby, 7 May 1841.

2. E.C. - S.G. Osborne, 22 August 1844.

appoint Commissioners who were half-hearted at best in their adherence to the principles of the Act, and who shaped their policy with a fearful eye on the "Times" and the agitators. Had not Frankland Lewis declared that in his opinion the pure workhouse system was impracticable in the existing circumstances, though it might be introduced in fifty years' time?⁽¹⁾ Frankland Lewis had since retired, but his spirit continued to rule in Somerset House, for he was succeeded by his son, George Cornwall Lewis, who inherited his father's feud. As strong-willed as his father, G.C. Lewis possessed considerably more ability. Over-weighted with erudition, gifted with something of Macaulay's reach of memory but none of his brilliance of style, he was a dry, patient accumulator of facts, from which by the most exhaustive intellectual processes he pressed out the most common-place of conclusions.⁽²⁾ He was, says Bagehot, "too prosaic,⁽³⁾ too anxiously safe, too suspicious of everything showy"; but on these qualities he had built up a reputation with the Whigs as a practical man of business with aims and motives which any other practical men of business could readily comprehend. Unemotional himself, and distrustful of feeling in others, he could not understand Chadwick's fierce enthusiasms; and he turned a cold eye on Chadwick's theories of government action. "The relation between himself and the secretary was that of an ill-assorted marriage of a catholic husband and a protestant wife; the wife somewhat the cleverer of the two, but with no privilege beyond the use of her tongue".⁽⁴⁾

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1. E.C. - Lord John Russell, 7 March 1840.
2. Reviewing his "Essay on the Influence of Authority in Matters of Opinion", a critic summed it up as a demonstration that when "you wanted to know anything, you asked someone who knew something about it". (W. Bagehot, "Biographical Studies", 1881, p. 238).
3. *ibid*, p. 207.
4. "Patronage of Commissions"; "Westminster Review", October 1846, vol. xvi, p. 229. It is unlikely that this article is by Chadwick himself, as the Webbs suggest; it is almost certainly by another hand (perhaps W.E. Hickson, proprietor and editor of the "Westminster", 1840-1852), working on material supplied by Chadwick.

So for a dozen years the conflict of wills went on at Somerset House. Chadwick was "unsafe" and "unpractical", the Lewises told their Whig friends, he wanted to "go too fast" (1), and his proposals were inhuman in their severity. (2) The Commissioners were pusillanimous, retorted Chadwick, they flinched before the thunder of the "Times", they countenanced practices which were flatly opposed to the principles of 1834, they employed office methods which were arbitrary and inefficient and, in fact, illegal. Over the question of out-door relief to the able-bodied Chadwick fought innumerable skirmishes and four major battles. In 1835 Shaw-Lefevre advised the

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1. "Letter of Edwin Chadwick, Esq., in vindication of his conduct to the Right Hon. Sir George Grey", 21 June 1847. In answer to the charge of precipitancy, Chadwick observes: "The principle of the change which I particularly recommended and, I believe, I alone advocated, was of applying the rules prospectively to new cases and of giving full, not partial, outdoor relief to the aged or making little alteration in their cases, except for improvement, and of proceeding wherever it was practicable with alterations singly and separately and gradually, instead of alterations at once with large classes. I advocated as an invariable condition that local inquiries should precede every local application of any important general order, and that it should be introduced with such modifications as the local inquiry should prove to be requisite".
2. *ibid.* Chadwick continues: "To sustain the charge of harshness, an order was adduced before the Committee called the Consolidated Order which two of the Commissioners had adopted, which provided for taking, not exceptional cases not temporary cases nor cases of emergency, but the whole of the regular outdoor cases into the Workhouse. Now, where and under what circumstances was this Order applied? To overcrowded Town Districts, in one of the least ill conditioned of which, out of 1485 families, 929 had only one room and 623 only one Bed for the whole family; and in another and by no means the worst conditioned District 382 families and 56 single persons had only single rooms, whilst 159 families and 156 single persons occupied, each family, only parts of one room. To those whose impressions of the abodes of the poorer classes in Town Districts or in any others are chiefly derived from Cabinet paintings, which misinform the eye and give no information to the sense of smell, agreeable scenes will be presented of cleanly inmates and cottage comforts, and indoor relief may sound harsh; but let them explore these abodes at times

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Guardians of Colne to hire out their paupers to local farmers. The Guardians refused to revive the discredited labour-rate, and Chadwick, with the backing of Nassau Senior, successfully upheld their protest in a letter to Lord Lansdowne, Lord President of the Council.⁽¹⁾ Two years later the Commissioners proposed to sanction in a General Order outdoor relief to labourers who were reduced to distress by the burden of a large family; Lord John Russell concurred with Chadwick's argument that the practice was contrary to the intentions of the Act, and there was an unpleasant scene at the Board, Nicholls huffily declaring that he would not consent to work with Chadwick if his views were so opposed.⁽²⁾ In 1840 they proposed to give statutory force to the various classes of exceptions which had been permitted to their General Order prohibiting outdoor relief. Forwarding to Lord John Russell a lengthy printed memorandum on the subject, Chadwick assured him that the opinions he was likely to receive from the Commissioners would be fashioned by what they thought most

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(Continued from previous page) when the whole family is at home, let them see and smell those places and they will concur in the humanity of the General Order for such Districts, as a general order for the relief of the Inmates of every room from which the objects relieved is taken. It was an order in respect of the aged or sick to remove them from a place of filth and personal discomfort --- from bad food taken in unwholesome places --- from bad attendants (for none can be good there) to cleanly and comparatively well ventilated places supplied with water and means of personal cleanliness, clean linen, wholesome food regularly prepared, with appliances of nurses and medical attendance and a state of things where the health (where any remains) is usually fast improved and life prolonged. Medical officers vindicate the rule on sanitary grounds as well as on grounds of common humanity"

1. "Notes of Objections to the proposed measure of recommending to parishes, having unemployed able-bodied paupers, to hire their labour to farmers to dig or fork the farmers' land at ploughing prices", MS, n.d.
2. E.C. - Lord Liverpool, 18 October 1841.

acceptable to him. "If you express a confident opinion in favour of the principle of stopping out door relief in new cases and following out the successful examples and an expectation of exertions and progress in that direction the expression of that opinion will dissipate impracticabilities and if nothing be done in parliament I have very little doubt that within a year some hundreds of thousands of pounds will be saved and some thousands of families preserved from Pauperism by a clear opinion that that which has been done gradually and peaceably in some places ought to be equally well done in others".⁽¹⁾

In 1841 matters came to a head. In June of that year Shaw-Lefevre went to the Board of Trade, and Chadwick promptly asserted his claim to the vacant Commissionership. The new law was in jeopardy, Lord Spencer told him bluntly, and to avoid disaster someone must be appointed who would give the most general satisfaction to the public --- and "from what I collected of the opinions of well informed and judging men when I was in town I should fear your receiving the appointment would

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1. Chadwick's objections on this occasion are worthy of particular note. In effect, he told Russell, the suggested clause would narrow the discretionary powers of the Commission, and in place of an order or regulation, which could be altered at once to meet the circumstances of different cases, would substitute a statutory provision which must undergo the rigid interpretation of a Court of Law. The power of supervision would thus be transferred from an administrative body, which was fully informed of the public policy of the law, to Judges, who were not possessed of such information and never could be. In the past judicial decisions on the poor laws had invariably been in opposition to the best intentions of the legislature. They could hardly be otherwise; for the opinions of the Judges were governed chiefly by the single case before them (which was frequently an exception), whilst the only safe decisions in this field were "on large classes of cases, and on general and often remote effects, which cannot be brought to the knowledge of the Judges". (Memorandum, printed, forwarded to Lord John Russell under cover of E.C. - Russell, 7 March 1840).

not be satisfactory to the public generally".⁽¹⁾ The post was therefore bestowed on another of the Whigs' bright young men, Edmund Head; he was, in Chadwick's judgment, the least efficient of the Assistant Commissioners,⁽²⁾ but he had been G.C. Lewis' "college friend and companion".⁽³⁾ The mounting bitterness of the previous seven years was crowned by the preferment of Edmund Head; and about the same time occurred a further clash over outdoor relief. Inquiries, one by the Assistant Commissioners, Mott and Gilbert, a second by Chadwick himself, had uncovered deep-rooted abuses at Bolton and Macclesfield, relaxed discipline in the workhouse, the grant of relief in aid of wages, and subventions in payment of rents. Neither report admitted to any doubt that the workhouse system could cope with the slow agony of the handloom weavers, on their way to the industrial scrap heap, who even in 1834, when bread was cheap, had been described as enduring "sufferings scarcely to be credited or conceived".⁽⁴⁾

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1. Lord Spencer - E.C., 13 June 1841.
2. E.C. - Lord John Russell, 19 June 1841. Chadwick complained to Russell that more petitions criticising the actions of Assistant Commissioners had been received from Edmund Head's district than from any other; it exhibited a large share of relapsed Unions, discontent, badly formed Unions, and badly appointed officers. Moreover, Head was known to hold the view that a compulsory system of relief was unnecessary. Chadwick suggested that the same care should be taken in ascertaining the qualifications and opinions of Commissioners as he himself employed in selecting Assistant Commissioners.
3. E.C. - ?, 13 October 1841.
4. Cf. Charles Mott - E.C., 14 July 1841: "I have given the Officers strict instructions as to the enquiries to be made and I have no doubt but most of them will be found to be in receipt of sufficient to keep them well It will turn out I have no doubt as all previous representations of the kind have that the difficulties of which they complain arise from their own want of care and economy". Mott's "got up" report aroused the indignation of Edmund Ashworth, the cotton manufacturer of Turton, near Bolton. "When we who live amongst it, see a thousand families, (which we are about to enumerate) brought to poverty by mere want of employment, the poor rates doubled, and parties asking relief or pining in want, who never asked relief before, we

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When Chadwick presented his report to G.C. Lewis, "it was received in such a manner that I should not myself again prefer complaints of the same kind".⁽¹⁾ One Commissioner told Chadwick that "he did not believe the allowance system could be put an end to".⁽²⁾ He persuaded a friendly Tory (Lord Radnor) to ask in the House of Lords for the reports to be produced, but with the end of the session G.C. Lewis managed to shelve the matter, and the reports remained unpublished until they appeared as appendices to the Report on the Andover inquiry in 1846. Chadwick's disgust at the suppression was shared by some, perhaps the majority, of the Assistant Commissioners, a number of whom had seen similar representations received with coldness by their superiors. "That is the feeling in the office", Chadwick told the Andover Committee, "that representations of that sort, importing an obligation to act, are distasteful, and not well received".⁽³⁾

The "illegality" of the Commissioners, Chadwick decided, could no longer be tolerated; and he determined on the extraordinary expedient of drafting a "case", in full legal form, against their office methods, which he insisted on laying before the Law Officers of the Crown. Perhaps nothing has contributed more to the unsympathetic portrait of Chadwick, rigid in mind, humourless in argument, not a little ridiculous in his self-importance, than this astounding step. Yet his "case" contains a great deal of hard common sense, a sure grasp

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(Continued from previous page) cannot stand silently by, or stamp them all as impostors. I wish we could. It then becomes our duty to call the attention of the authorities to these facts We are getting worse every day and there will be a loud clamour before the winter is over, if not some outbreak: the patient endurance of the people hitherto is beyond belief, and deserving of all praise". (Edmund Ashworth - E.C., 11 December 1841).

1. Report of House of Commons Committee on Andover Union, August 1846. Chadwick's first examination, Q.19057.
2. *ibid*, Q. 19065.
3. *ibid*., Q.19129.

of certain fundamental principles of office management, and sound insight into the relations of confidence which must be established between a central department and local authorities --- the whole overlaid by legal pedantry and the personalities of which he could never divest his remonstrances. The peculiar merit of administration by a central Board, Chadwick contended, lay in the preparation after careful deliberation of resolutions or minutes, which might be circulated for the guidance of local authorities. That advantage was lost by the mode of business introduced by Frankland Lewis, and continued after his resignation. The Commissioners, having divided the country into three provinces, sat in separate rooms, each dealing with the correspondence of the Unions assigned to him. This is the "skilful combination of individual and collegiate activity", commended by the Webbs,⁽¹⁾ which Frankland Lewis defended as the only way to cope with the flood of letters and reports which poured daily into Somerset House. Frankland Lewis did not admit, however, and the Webbs apparently were not aware, of the difficulties to which this arrangement led, and of the advantages of the alternative methods suggested by Chadwick. Three separate establishments of clerks had to be maintained, with varying amounts of business. Letters went out as passed by a Board when none had been held. The tracing of precedents was obstructed. The Commissioners differed in their manner of dealing with the same class of subjects; in their attitude to relief orders, for example, "one Commissioner was fair, another lax, another still more lax"; and Frankland Lewis took nearly twice as long as the other two in the despatch of his correspondence. It was the verdict of James Coode, the Assistant Secretary, who after 1839 handled the bulk of the routine business, that if the Clerk to a Board of Guardians could not keep better minutes than the Poor Law Commissioners he would be dismissed. "You should not make the plaister

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1. S. and B. Webb, "Old Poor Law", vol. 2, p. 110.

larger than the sore" was Frankland Lewis's favourite aphorism, and in his opinion answers to correspondence should be confined to the expression of a dictum applicable only to the particular case. This was directly opposed to Chadwick's view that, instead of short routine replies, well prepared expositions of general principles should be made for each class of case, so that the secretary could then refer correspondents to the minutes of the Commission for information. A Central Board, as he told the Highway Committee in 1838, should be a "reservoir of information", acting on the understanding of local authorities, not browbeating them by its mere authority. It was essential that there should be an unceasing flow of facts and observations from the localities to the central department, where they might be digested and put in a form suitable for the instruction of local officials. "It appeared to me to be the best mode of making authority respectable and respected and obeyed, the obedience being less to individuals or to the mere office and authoritative position, than to the information --- obedience or co-operation rather obtained on the conviction which experience should justify, that the central authority had made more full and complete collection of the facts and more thoroughly investigated them than any single individuals could or would do".⁽¹⁾

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1. Chadwick's case against the office methods of the Commissioners is argued in detail in a "Letter to the Right Honourable Sir George Grey, Bart., Her Majesty's Principal Secretary of State for the Home Department, on the transaction of the business of the Poor Law Commission, and on the popular means of exercising a central control", MS, n.d. 1847.

His main proposal was that only the emergent correspondence should be dealt with on the first day; by deferring the remainder to the second day, he urged, time would be given to search for former correspondence on the same subject and prepare suggested answers. The papers would thus be brought before the Board in a prepared state, after passing through a selective filter of clerks and assistant secretaries who would have reduced its bulk by removing the purely routine matter. But the Commissioners

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One of the Law Officers upheld his contention that each instance of separate action by the Commissioners was indictable; some minor changes were made in the conduct of business to meet his criticisms; but the chief result of his protest was that even his infrequent attendances on the meetings of his chiefs came to an abrupt end. He thought seriously for a time of

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(Continued from previous page) insisted on dealing with even the routine and interlocutory correspondence, and in consequence, as they were pressed for time, the tone of their replies became curt and harsh, instead of full and explanatory. And, on the other hand, some matters which were not routine, and should have received the collective attention of a Board --- such as workhouse regulations, instructions to Assistant Commissioners, and the sale of parish property --- were also conducted by individual Commissioners in their separate rooms. The plan for hiring out pauper labourers in 1835 had been sanctioned by a separate letter (by Shaw-Lefevre); and Chadwick maintained that the dismissals of Day and Parker, with all the accompanying scandal, would have been avoided if the Commissioners had taken their decision at a Board meeting and stated in the minutes their publicly defensible reasons for the step.

As an example of the advantages to be derived from the "information-elicitative" and "information-distributive" functions of the central department, he quotes the order for the execution of the Vaccination Act in 1840. "At first the local authorities received the charge as a new Tax and prepared to resist the measure but the instructional letter which I drew up after a laborious consultation of the medical authorities in Scotland as well as in England had as I was assured the effect of removing objections and producing extensive voluntary co-operation".

The failure of the Commissioners to enlist such voluntary co-operation, a failure which he alleged was largely due to their business methods, is the chief burden of his complaint --- as the title of his "Letter to Sir George Grey" illustrates. "Although I have contended that it was necessary to invest the Central Board with strong powers yet I have always considered that those powers were only to be used in behalf of the public in cases of absolute necessity and then used firmly and responsibly. In this view, I objected from the first to the power of making orders being delegated to Assistant Commissioners and urged that they should be compelled to act by suggestion or persuasion rather than by Order"

accepting an offer from Lord Normanby to place him in some other Government department --- as counsel to the Home Office he could supervise the execution of two other measures he had fathered, the Factory Act and the County Constabulary Act, and so "obviate the necessity of appointing two if not three chief Inspectors".⁽¹⁾ Since 1839, however, he had been engaged on the sanitary inquiry, and he was beginning to realise that it was the biggest and most important of his career. He stayed to see it through.

It is fortunate for Chadwick that his reputation does not rest entirely upon this chapter of his career. Had he been in charge at Somerset House from 1836 to 1841, that unquestioning confidence of his in the possibility, even the expediency, of cutting off all forms of outdoor relief to the able-bodied might well have brought the whole Poor Law edifice crashing about his ears, might perhaps, in the northern towns, have ushered in the Marxist Apocalypse that Engels was prophesying in 1845. The "supineness" of the Commissioners was a policy of caution which averted that danger, their "flinching" sprang from a prudent recognition that the root-and-branch abolition of outdoor relief was impracticable in the economic circumstances of the time. One unexamined theoretical assumption and one large practical miscalculation had between them made nonsense of Chadwick's Poor Law scheme. The assumption was Chadwick's excessive faith in the elasticity of the economic system, and in its capacity to absorb the impact not merely of casual day-to-day unemployment, but even of the "hard core" unemployment which emerges when an industry goes into decline, and of the recurrent mass unemployment which is due to fluctuations in trade and is the heaviest burden of all. Believing that the demand for labour might shift but did not fall away in total sum, he seriously over-estimated the facility with which a labourer thrown out of work in one trade could find

1. E.C. - Lord Normanby, 12 May and 18 June 1841.

alternative occupation in another. The rest followed logically. If there are jobs for all, then the able-bodied man who is without one for any length of time must be either unwilling to work or of such a character that no employer would engage him. In short, he was likely to be a bad lot: an idler, a wastrel, a trickster, an inefficient worker, or a black-listed Trade Unionist. To submit him to the discipline and frugal diet of the workhouse was as much in his own interests as in those of the community at large. Only by those reformatory influences could his moral fibre be sufficiently strengthened to support the strain of independent existence; only so could the honest labourer be spared the demoralising spectacle of a man who had not worked enjoying the luxuries of white bread, strong ale, and meat every day of the week.

For one whose boast it was that his proposals were based unshakeably on the facts, Chadwick showed a peculiar insensitivity to the evidence when he visited Bolton and Macclesfield in 1840; and for one who claimed to trace back pauperism to its roots, he remained singularly incurious about the extent and nature of the various types of unemployment. While his theory was thus insecurely erected on an assumption as uncritical as any made by the "hypothesisists" he so despised, his practical recommendations were also vitiated from the start by a fundamental miscalculation --- that, having read his reports, the Government would be stimulated with something of his vision and his enthusiasm for large administrative schemes. Where were the teachers, the nurses, the asylum attendants, and all the other specialists demanded by the policy of "aggregate in order to segregate"? To find and train them, and to establish and equip the various residential institutions for instructing the young, tending the old, and curing the sick, made a call upon the resources and the active good-will of the Government for which there was no precedent. Neither the Poor Law Commissioners nor the Whig Ministers had any heart for so

ambitious a programme. They chose instead to do as little as they dared and as cheaply as they could. On the grounds of economy and simplicity, they created a hermaphrodite administrative monster, uniting in a single body one institution whose purpose was deterrence, with another institution, or series of institutions, whose professed objects were treatment and instruction. In so doing they made it impossible to divide the "involuntary" sheep from the "voluntary" goats; all alike, the aged and infirm, the orphans, the widows, the vagrants, the able-bodied unemployed, bore the same stigma and were subjected to the same discipline.

In justice to Chadwick, therefore, it is essential to realise that his dispute with the Commissioners over their policy of indulgence --- a dispute in which his errors of judgment and obtuseness of feeling reveal him in the worst possible light --- was only one aspect of a wider conflict of principle. The Webbs have made it their major criticism of the Poor Law Commissioners that they did not view pauperism in the context of destitution, and therefore neglected the causes which led to the perpetual recruitment of the pauper host.⁽¹⁾ This criticism, valid as it is against the Commissioners, cannot be levelled with anything like the same force against their Secretary. For, as we have seen, Chadwick in 1834 was already elaborating measures designed to cut at the roots of pauperism. He never believed, with Frankland Lewis, that pauperism was part of a divine or natural ordering of society, and that --- as the Malthusian revelation ran --- great numbers of mankind were doomed to live on the margins of misery, only relieved by the casual charity of their betters. To the faith in "God" or "Nature", which issued in a policy of administrative inertia (Melbourne's "letting things shake right") and a complacent acceptance of things as they are, Chadwick opposed a faith in government as a contrivance of the human will, which might be

used aggressively to minimise the volume of pain and maximise the volume of pleasure. Blinkered as his intelligence was, limited as he was in the range of his sympathies, inept as he showed himself in the calculation of political expediencies, he was yet one of the very few men in the departments of State of the time, whether as permanent official or political head, who held firmly to the belief that it was the essential business of government to take thought for the welfare of the people --- and, having thought, to act.

As he told Sir George Grey in 1847, he had from the first urged the segregation for specialised institutional treatment of the various classes of paupers, the sick, the blind, the idiots, the lunatics. But "I could not but regard them as being for the most (part) collections of sores which the best treatment after all could not cure or do more than alleviate."

"The contemplation of these wrecks of humanity continually forced upon me the consideration whether nothing effectual could be wrought out for prevention. At every opportunity, I have made exertions to explore the various contributory sources or causes of Pauperism and the practicable means of prevention, and although persons who have no information on the subject may imagine on the suggestion of an inquiry into "causes" that it was a course of inquiry into original Causes --- something very remote abstract and impracticable, it was not so. It was frequently only necessary to go a few links or a few steps back beyond the range of popular discussion and legislation, when we are brought upon causes which upon due investigation are found to be preventible and generally with large pecuniary economy."

With the most notable of these inquiries, the sanitary investigation, we shall deal at length. But there were others, some fruitful, some --- through lack of time, lack of means, and

the scepticism of the Commissioners --- abortive. He had asked himself, for example, how far the traditional intemperance of army and navy pensioners was due to the practice of paying them quarterly, and, by thus flushing them with unaccustomed wealth, giving them at once the excuse and the means for celebration. His report on the connection between drunkenness and modes of pay was set aside by the Commissioners, without reason being given; but he observed with satisfaction that the Government subsequently decided to pay pensioners at monthly intervals and keep them under inspection. In 1846, despairing of getting the Commissioners interested, he made a private investigation into the condition of railway labourers: "the same inquiry and preceding inquiries into cases of chargeability from accidental maiming and of Widowhood and Orphanage from fatal accidents in Mining, Manufacturing and engineering operations led to the development of the principle of making all branches of Industry chargeable with the attendant consequences as the most efficient preventive principle; --- preventive of the accidents themselves as well as preventive of the chargeability upon the rates".

"In 1840 I collected Evidence as to the different value of trained and educated as compared with untrained and uneducated Workmen to shew the consequences of want of training and education as causes and the importance of attention to them, as preventives of disorder and destitution.

I had occasion to observe that there were some persons of peculiarly susceptible mental constitutions who might be placed under circumstances to produce Insanity (as we know that there are persons of certain bodily conditions that may be placed under circumstances to catch fever). I had heard of antecedents to larger proportions of Idiocy amongst the population of some Districts than others. About 1839 I proposed that a special inquiry should be made into the pauper Lunacy and Idiocy not only with ^{the} view to the separation and removal of the cases from

the Union houses and to an improved curative treatment but with the view to more careful investigation of common antecedents or causes than had yet taken place and for the dissemination of public information and warnings as to the causes which might appear to be removeable. I had prepared one Assistant Commissioner for such an inquiry but the proposal was not received or acted upon at the time and I was unable to press it".(1)

For six more years after his revolt in 1841 Chadwick remained at Somerset House in this anomalous position, not strong enough to overthrow the Commissioners, too powerful to be dismissed by them. "Your differences with Mr. Lewis were so notorious in the office", commented E.C. Tufnell, one of the Assistant Commissioners, "that I remember once mentioning to Mr. Coode that I wondered why you were not dismissed or could stay at your post. His reply was, that though you did next to nothing as Poor Law Secretary, that you were so useful to the Government in conducting the Sanitary inquiry and other matters, that you fully earned your salary, and were one of the hardest worked public servants he ever knew".(2) Thus, one good result emerged from that unhappy tangle of crossed wills -- ^{he} was left very much to himself to work out the principles of his preventive administration. "The Commission is thought to be the enemy of the poor", wrote a friendly clergyman, "But when in the History of our country have such researches been carried on for their benefit, or how many years, perhaps centuries, might have elapsed before it would otherwise have been attempted?".(3) It was fortunate indeed for the public health movement that Chadwick did not make his escape in the summer of 1841.

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1. "Letter of Edwin Chadwick, Esq., in vindication of his conduct to the Right Honourable Sir George Grey", 21 June 1847.
2. E.C. Tufnell - E.C., n.d., 1847.
3. Rev. Whitwell Elvin (of Bath; later editor of the "Edinburgh Review") - E.C., 15 January 1842.

CHAPTER 3.THE "SANITARY IDEA".

Canning once observed that there was nothing he so much dreaded as facts and figures; repeating this to Lord Brougham, Chadwick added that in truth there was nothing which ought to have been dreaded more than such figures as were then available --- "wretchedly imperfect figures, giving only half facts, leading to wrong or wild conclusions".⁽¹⁾ At the turn of the century there had been keen debate whether the population of England was increasing or decreasing, and elaborate theories about the future of society had been spun with vast ingenuity from the few known facts. Error and bias were inevitable where judgment and not measurement was the guide. Fear of Roman Catholics was enhanced because their exact strength was unknown; jealousy of cheap Irish labour increased because its proportions were not clearly seen; and --- to quote one of Chadwick's favourite examples --- the pessimistic school of social moralists were encouraged in their gloom by Patrick Colquhoun's fantastic estimate that there were 50,000 prostitutes in the capital, which meant one for every three or four males in the London of his day.⁽²⁾ "Political Arithmetic" was making a slow progress, however, trimming the outlines of fluffy generalisations, replacing crude guess-work by verifiable information, defining the lineaments of society every year in

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1. E.C. - Lord Brougham, 28 February 1856.
2. "First Report of Commissioners appointed to inquire as to the best means of establishing an efficient Constabulary Force in the counties of England and Wales", 1839, p. 15. Even in 1844 Southwood Smith could write to Chadwick: "It is notorious that during the last year fever has been ravaging many localities in the provinces and in the large towns, but no one can form any conjecture as to the real extent of the evil, though this is a matter which the public and the legislature have a deep interest in knowing". (19 January 1844).

sharper outline. Finlaison had taken the first English census in 1801 (fifty years before the idea had been rejected by Parliament as an infringement of the liberty of the subject, and as likely to lead to some public misfortune or epidemical disorder); actuaries, worried over the validity of their life tables on which the solvency of the insurance companies depended, had begun to work out the theory of vital statistics; in 1832 the Board of Trade had set up a Statistical Department, introducing an outside expert, G.R. Porter, to superintend it; in 1833 the Statistical Section of the British Association had been established, to be followed promptly by the foundation of Statistical Societies in London, Manchester, and Bristol. More and more the appeal to facts and figures strengthened the hand of the reformers. John Howard, touring the gaols in 1774, had been the first to use the statistical method as an instrument to diagnose the character and assess the gravity of social disease. John Rickman's census of 1831, showing the population and wealth of the manufacturing districts, had its influence on the Reform Bill debates.⁽¹⁾

In this development, which before the century was out was to make the central departments vast machines for the manufacture of blue books, Chadwick played a decisive part. He possessed no mathematical ability, and the subtleties of statistical theory were beyond him,⁽²⁾ but he realised that the

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1. J. Rickman - E.C., 5 June 1840. Rickman's "Statement of Progress", 31 Dec. 1831, showing the comparative populations of every place in Great Britain, was, he says, put in the hands of every M.P. before the Reform Bill debates, "which were mainly founded on this my Volume of 417 pages".
2. He told the Association of Sanitary Inspectors in August 1888 that among the poor in Brighton the deaths of children under five years of age formed 35.17 per cent. of the total deaths, while among the rich they were only 8.9 per cent. "Any conclusion from such premises as to the relative healthiness of the two classes would be misleading. The larger number of children among the poor implies a larger population exposed to children's ailments, and consequently a larger number of deaths under 5 years of age as compared with the total deaths, apart altogether from any difference in sanitary conditions". (Newsholme, "Vital Statistics, p.112).

first step towards controlling social evils was to measure them. Finding his advance everywhere blocked by entrenched interests, he soon perceived the blasting power of fact. His first work of note, the essay on "Life Assurances" in the "Westminster Review" (1828), was an exposure of the misleading picture of social conditions presented by the out-of-date life tables of the Insurance Companies, and a plea for Government action to institute a complete registration of births, marriages, and deaths, the "first stages of the process of forming a legitimate theory" being "diligent investigation and the sagacious comparison of a variety of phenomena".⁽¹⁾

Eight years later the Whig Government introduced a Registration Bill, intended primarily as a measure for the relief of Nonconformists from that remnant of Anglican privilege, the Church registration of births, marriages, and deaths. Chadwick seized upon the Government's pathetic little measure, which lacked any scientific attributes, either medical or economic, and gave it a new power and a new direction. He obtained the provision that besides the fact of death, the name of the fatal disease should also be recorded, so ensuring that registration should not consist merely of a roll-call of the deceased, but should furnish the diagnosis by which the communal efforts of preventive medicine might be directed.⁽²⁾

In the debate Lord Ellenborough carried a suggestion that the measure should be put into effect by the machinery of the new Poor Law Unions, on the grounds, as he later explained to Chadwick, that the Government's first proposal would have distributed throughout the country "a strong Battalion of Whig Attornies to act as Party Agents at the Public Expense".⁽³⁾ There was "great wailing about the lost Battalion",⁽⁴⁾ and the

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1. "On Life Assurances", "Westminster Review", February 1828, p. 417.
2. 6 & 7 Will. IV cap. 86, 17 August 1836.
3. Lord Ellenborough - E.C., 27 October 1841.
4. *ibid.*

wailers looked on Chadwick as the cause of their bereavement. He always believed that Lord Melbourne's bearing towards himself became less cordial after this incident. "His private secretary said "they said" that the damage had been done by me".

(1) Ellenborough's proposal was, in fact, made without consulting Chadwick. (2) Once it was put forward, Chadwick's one concern was that "a flood of jobs intrigues and corruption will be let in upon the Guardians who have hitherto with great difficulty been kept tolerably clear of those vices by the Commissioners"; and at his suggestion the appointment of the local registrars was made subject to the approval of the Registrar General. (3) Nor did the measure increase his popularity with the Church. The poor curate, with his £70 or £100 a year, looked eagerly for the "Godsends" of the smallest fees; moreover, the clergyman who recorded the marriages of the middle classes was frequently invited to the wedding dinner afterwards, and "to a poor clergyman a feast is something". (4) But it was their baptismal fees which were hit most of all. "The labouring classes have a notion that if their children die without being properly named the proper Angels will not know by what names they may be called to heaven by. But if the child be named and registered by any public officer that will do as well; the child is named and that is enough: they dont see why they should go and pay the parson when they can get it done for nothing by going to the Registrar. The inferior clergy have preached various sorts of doctrine against this belief, but still their baptismal fees have diminished and they preach vigorously against the Government from which it emanates". (5) It was a curious episode, and as a result of it Chadwick was visited with the double hatred of being an enemy of the Church

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1. E.C. - Lord Ellenborough, 30 October 1841.
2. The Webbs ("Old Poor Law", vol. 2, p. 113) echo the Whig rank and file in asserting that the idea was due to Chadwick
3. E.C. - Lord John Russell, 3 July 1836.
4. E.C. - Lord ? (probably Russell), 3 January 1841.
5. *ibid.*

for sponsoring the Bill, and an enemy of the Government for depriving them of some five hundred appointments.

The new department was established at a time when a large proportion of the offices under the Government was directed to the outdoor relief of the upper classes, and granted by Ministers to those bearing the family name, or, perhaps, merely the family features. The first Registrar General was T.H. Lister, who was distinguished as a three-decker novelist, but had the additional qualification of being Lord John Russell's brother-in-law. He was succeeded by a cavalry officer, the brother of Sir James Graham. "Neither gentleman understood anything of medical and sanitary statistics and never perhaps wrote a line of the reports on them".⁽¹⁾ But Chadwick succeeded in persuading Lister to appoint as his assistant a young doctor, William Farr, who, in the course of an unorthodox and unsystematic medical training, had picked up a knowledge of vital statistics; and Farr set to work, contentedly and profitably, to introduce order and method into the facts and expound them for professional and public information.

There was no personal friendship between the two, and Chadwick, who at times was as imperious with figures as with men, inevitably came into conflict with the quiet clerk at the Register Office. Farr ventured to question in the "Lancet" some tables which Chadwick had drawn up to show that in prisons

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1. E.C. - Duke of Northumberland, 27 December 1878. Of Major Graham he wrote (MS fragment, n.d.): "The incompetency of the man is notorious. It is not believed that he wrote the reports which bear his name, poor as they are". In justice to the Major, however, Farr's tribute to his departmental virtues should be quoted: "My name has been a good deal before the public; and the fact is that Major Graham's services have not been sufficiently recognized. They will now be appreciated for it will be very difficult to replace him. I know that I shrink from the task; not that I fear being able to do all the scientific work, and to take the general direction of the Policy of the Office; but the daily administration I hold cannot be better performed than it was by Major Graham". (W. Farr - B.W. Richardson, 24 Jan. 1879).

where the diet was richest the amount of sickness was greatest, tables of which he was very proud, and which tended to demonstrate what was not as obvious as it might be to the queasy stomachs of the working classes --- that the most economical feeding was also the most humanitarian. This piece of perverseness Chadwick overlooked. But next he found in the Registrar General's returns a number of deaths from starvation. This implied that there were people who preferred to die quietly in the street rather than enter one of the Poor Law Bastilles. Chadwick therefore published an attack on Farr's figures, together with animadversions on his integrity, in the "Official Circular", and showed that only 2 or 3 per cent. of the cases registered as deaths from privation were in fact deaths from lack of food, and those were either accidental or suicidal.⁽¹⁾ The coolness continued between the two men,⁽²⁾ so differently

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1. E.C. - Dr. Laycock, 13 April 1844.
2. When it was rumoured that the census of 1841 was to be put into Farr's hands, Chadwick informed the Commissioners that he would exceedingly dislike having to work on the census in conjunction with the Registrar General's office. In the end the census was entrusted once more to Rickman, who wrote to thank Chadwick for his warning about the "machinations of Dr. Farr": "I suppose his Master at the Registrar Office sighs to get rid of this disgraceful Incubus, and would gladly do so by recommendation to any other employment, being I suppose too much involved with him for decided dismissal". Rickman goes on to express surprise at the "ridiculous letter of the said Dr. Farr which you have printed with your excellent Answer to it --- but it is a serious matter for reflection that such Nonsense should be permitted by Mr. Lister to issue from his Office, and if the next Annual Report does not decently but completely disavow the trash appended to the last year's Report, National disgrace will be incurred unless it be duly exposed on the first opportunity, --- which will soon occur"

constituted and working by so different ways to the same end. He paid no attention to Farr's "animosities or petty jealousies"; Chadwick told a friend in 1844, "but I am sorry to say that it is not the only instance in which on looking into some covert from whence an insidious attack on my labours have proceeded I have found some one behind to whom I have rendered some special service".⁽¹⁾

The article on Life Assurances, which reveals Chadwick's early interest in statistics, shows also that at twenty eight he had already formulated the principle which underlies his public health work, the broad but sufficient generalisation that the duration and healthiness of life are determined by the circumstances in which it is lived. He quotes with approval the conclusion of Villermé, the French medical statistician, that "the gradations of wealth, or the means of providing comforts, may almost be taken as the scale of mortality", and urges that an investigation into the conditions of the working classes would be an "invaluable acquisition to science, and would direct the public exertions in removing those circumstances which shorten life, and in promoting those under which it is found to attain its greatest duration".⁽²⁾ A few

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1. E.C. - Dr. Laycock, 13 April 1844.
2. "On life Assurances", "Westminster Review", February 1828, pp. 413, 385. From Finlaison's tables Chadwick shows that the average expectation of life had been prolonged by nearly one-third in the course of the previous century, the reason being clearly a beneficial change in the habits and circumstances of the various classes. Thus, "the vice of hard drinking is no longer fashionable; and he who should now seek distinction as a six, or even as a four bottle man, would be classed with those persons of humble station and more limited means, who are occasionally celebrated in the newspapers by the announcement of such exploits as eating a whole leg of mutton, and a proportionate quantity of candles by way of dessert" (p. 383). As for the labouring classes, "they are more cleanly and regular, their houses are better constructed, they have acquired some notion that fresh air is conducive to health, and the streets where they reside are less filthy and pestilential than formerly" (p. 390).

years later, when he was preparing his report on London and Berkshire for the Royal Commission on the Poor Laws, he observed how some unhealthy neighbourhoods were notorious as sources of pauperism. The beadles of Newington, for example, being ordered one very severe winter to pay particular attention to the sick outdoor poor, had gone at once without making any inquiry to a certain group of courts --- just as a gamekeeper might go to a well-stocked preserve --- and had returned with two coach-loads of fever victims.⁽¹⁾

This was the seed which was to bear so plentiful a crop in later years, but it did not germinate until 1838, when Chadwick, now Secretary of the Poor Law Commission, restless with unoccupied energy and unsatisfied ambition, was permitted to enter upon a course of inquiry which his superiors thought of little importance, save in one respect --- that it kept him quiet. Throughout the intervening years he had sat in Somerset House, at the centre of the Poor Law web, receiving from day to day the reports of Guardians and relieving officers and workhouse surgeons with their constantly reiterated lesson that disease fed the workhouses and insanitary conditions bred disease. "For some reason, which he never understood, the sanitary idea became dominant in his mind, and he became impressed with the conviction that if sanitation were carried out in its completeness, disease, which was the cause of all death before the appointed time, would itself die".⁽²⁾

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1. "Extracts from the Information received by H.M.'s Commissioners, as to the Administration and Operation of the Poor Laws", 1833, p. 310.
2. Obituary of Chadwick, "Lancet", 12 July 1890 (the writer is reporting an actual conversation with Chadwick).

Chadwick, it may be noted, was very critical of an article in the "Edinburgh Review" which represented the sanitary inquiry "as a consequence following from the new poor law, and naturally following". He told the author (Bamfield) "that he was wrong in fact and pointed out to him that the circumstance that it had arisen from the accident of a person who had given early attention to questions of insurance and laws of mortality, having been placed under favourable circumstances to direct attention to the subject". (Macvey Napier Papers, f.629, 12 Oct. 1844).

To the relieving officer at the parish pay table and the parish surgeon on his rounds in the lower districts of London the connection between the fever nests and the mounting poor rates was obvious enough. Reasoning that there could be no end to the outlay of money in relieving individual cases of fever until the cause which produced the malady was removed, the Union authorities in some places indicted the landlords for nuisance, defraying the expense of prosecution from the poor-rates. In doing so they came into conflict with the auditors, under orders to strike out and disallow all charges not expressly authorised by statute. The disputants took their argument to Chadwick, who saw at once that it offered an opportunity to introduce into the practice of the Poor Law Commission some of the principles of preventive administration which he had tried unsuccessfully to insert into the Act of 1834. In 1838 the steady annual stream of typhus cases swelled suddenly to flood proportions. In some streets cases occurred in almost every house; in some courts not a house escaped; and in a few instances there were victims in every room of every house. Altogether 13,972 cases of fever, 1,281 of them fatal, were reported in London during the year, 9,228 being contributed by certain districts, and in particular Whitechapel, Bethnal Green, Lambeth, St. George the Martyr, Stepney, Holborn, and St. George in the East.⁽¹⁾

Chadwick called the attention of the Commissioners to the preventible nature of a large proportion of the fever cases, and recommended a special investigation by three well-known medical observers, Drs. Kay, Arnott, and Southwood Smith. No better choice could have been made. Dr. Neil Arnott, a friend of Bentham and J.S. Mill, at whose house Chadwick had made his

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1. "Fifth Annual Report of the Poor Law Commissioners", 1839. Appendix C. No. 2. "Report on the Prevalence of Fever in Metropolitan Unions during the year ended 20 March 1838", by Dr. Southwood Smith, pp. 164 - 166.

acquaintance, had written a celebrated work on physics, and was a recognised authority on the warming and ventilation of houses. Dr. Kay (later Kay-Shuttleworth) brought to the inquiry the experience of a dispensary physician in the Irish quarter of Manchester, which, as he says, burned into him the conviction that it was futile to look to charity and medical skill alone to deal with social evils.⁽¹⁾ With an appetite for work which rivalled that of Chadwick, he possessed also something of his self-confidence and ruthless energy, together with certain crotchets and angularities of his own; and a few years later, as Secretary to the Committee of Council on Education, he was to drive himself into a breakdown grappling with difficulties not unlike those which surrounded Chadwick at Somerset House. It is well to remember that Chadwick was not the only permanent official of the time to engage in disputes about his status, to arouse hostility from powerful sections of public opinion, and to encounter the charge that he was making a department of State the instrument of his own views and ambitions. With the third member of the medical inquiry, Chadwick's career was to be more intimately linked. Southwood Smith, physician to the London Fever Hospital, was another Benthamite (Bentham had left him his body for dissection and he had pronounced an oration over the philosopher's corpse at the Webb Street School of Anatomy); and as the author of a standard "Treatise on Fever"

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1. F. Smith, "Life of Kay-Shuttleworth", p. 14. In an autobiographical MS dated 1877, Kay-Shuttleworth states that about the year 1834 he began to study the best examples of urban drainage and water supply. "After I found myself likely to be absorbed in the efforts of the Government to establish a system of national education, I recommended Mr. Edwin Chadwick to undertake the prosecution of this investigation into town drainage and water supply, and other connected questions of sanitary improvement He possessed singular sagacity and skill to avail himself of all the indications in existing arrangements by which the most effectual system could be discovered". There is no evidence to support this rather patronising description of the genesis of the sanitary inquiry.

was shortly to become the chief medical theorist of the sanitary reformers. The heart of the gentle Doctor, however, was a great deal sounder than his epidemiological views, and the simplicity and integrity of his character won over for the cause many who were repelled by Chadwick's demoniac reputation. All who met him --- including even the cantankerous Toulmin Smith --- acknowledged his love of his fellow men, which warmed the sympathies more than Chadwick's hard dry passion for efficiency. There was need for both men in the sanitary movement, which must touch the conscience as well as persuade the reason if the Peels and Grahams were to be brought to act.

In May 1838 the three set off on an exploratory tour, Arnott and Kay to Wapping, Ratcliff Highway, and Stepney, Southwood Smith to Whitechapel and Bethnal Green. How far, they inquired, were the conditions in which the poor lived due to the habits of the poor themselves, how far were they "voluntary", to use the favourite word of the Poor Law theorists? Very little, the Union medical officers replied. True, the poor drank too much; they neglected vaccination; they were reluctant to enter a hospital when they were attacked by contagious disease; they did not wash their persons, their clothes or their houses often enough; they crowded noisomely together in dwelling-houses and lodging-houses. But these "personal habits" of the poor, as the investigators termed them, were not the most powerful forces shaping the mould in which their lives were set. They were surrounded by filth, accumulated in cesspools and privies and stagnant surface drains; they breathed the exhalations of undrained marsh land, graveyards, and slaughter-houses; they had no choice but to live in narrow alleys and close courts. The investigators concluded that there were some evils which could not be avoided by any exercise of prudence on the part of the poor, and which were independent of their personal habits. They were removable, however, by the well directed arrangements of public

authorities --- by a system of sewers, a plentiful water supply, an effective service of scavengers, ^{by} control of building, and regulations ~~against~~ ^{against} overcrowding and noxious trades. Powers should, therefore, be given to Poor Law Guardians to cleanse ditches and pools, to inspect lodging-houses, to indict nuisances, and to carry out generally the functions of a public health authority, for which, as a locally elected body, charged with duties relating to the poor, and commanding the services of paid officers, they were particularly suitable.

It was not the first time that medical men had investigated the sanitary condition of the towns --- Currie at Liverpool, Ferriar at Manchester, Haygarth at Chester had done valuable pioneer work in this direction at the end of the eighteenth century --- but it was the first time that such an inquiry had been directed by a Government department with a view to action. The reports were forwarded to the Home Secretary, Lord John Russell, on May 14th 1838, under cover of an official letter from the Commissioners, recommending as a temporary measure that the Guardians should be empowered to indict the parties responsible for nuisances.⁽¹⁾ Chadwick also addressed a private note to Russell. "It has long appeared to me that it would be worthy of your Lordship to bring in a Bill for an Act of the nature of the Building Act to regulate the

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1. "Fourth Annual Report of the Poor Law Commissioners, 1838. Appendix A, No. 1. "Copy of the Report of the Poor Law Commissioners relative to certain Charges which have been disallowed by the Auditors of Unions in England and Wales", 14 May 1838, pp. 93 - 103.
 Supplement No. 1. "Report on the prevalence of certain Physical Causes of Fever in the Metropolis, which might be removed by proper Sanatory Measures", by Neil Arnott and James Phillips Kay, 12 May 1838, pp. 103 - 129.
 Supplement No. 2. "Report on some of the Physical Causes of Sickness and Mortality to which the Poor are particularly exposed, and which are capable of removal by Sanatory Regulations; exemplified in the present condition of the Bethnal Green and Whitechapel districts", by Thomas Southwood Smith, May 1838, pp. 129 - 151.

future dwellings of the labouring classes: providing that none should be built without provision being made for proper drainage, the width of streets, etc..... The larger political reforms have only affected the labouring classes indirectly. A reform in the mode of building would affect them directly and most beneficially and would redound greatly to the credit of the Government which procured it."⁽¹⁾

Thus, within four years of its establishment the new Poor Law Commission was expanding in a way which threatened to burst its statutory limits. The underlying theory of the Act of 1834, that most pauperism was "voluntary", the result of moral defects such as idleness, intemperance, and improvidence, was breaking down before the logic of the facts; and if the diagnosis was incorrect, it followed that the course of remedy must be altered. A case might be made out for invoking pains and penalties to scourge "voluntary" paupers out of their fecklessness; but once let it appear that the main causes of pauperism were not personal but social, that the pauper was usually the end-product of social processes over which he had no more control than he had over the weather, then a punitive treatment of paupers was no more just and sensible than a punitive treatment/ ^{of lunatics} whom an earlier age had considered in some way responsible for their condition. Deterrence and alleviation, the remedies of 1834, must give way to an investigation of causes, and the elaboration of wide schemes of reform aimed at prevention. Under Chadwick's influence a department founded to regulate poor relief was assuming, reluctantly, functions which reached out to embrace the duties and interests of all classes. It had already given birth to a Registration Act, under which for the first time the facts of national ill-health and premature mortality were being assembled. It was presently (in 1840) to offer to vaccinate

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1. E.C. - Lord John Russell, 21 June 1838. Chadwick here suggests that Dr. Kay, who had studied housing for many years, "would at any time supply the materials for a practical and useful bill".

at the public expense the children, not of paupers only, but of any one who cared to bring them to the Union surgeon. If Chadwick had his way it would also become a department of education and a department of public health, unless the Government should segregate these functions before they swamped the Poor Law Commissioners.

The letter to Russell produced no immediate effect. In their next Report the Poor Law Commissioners underlined its argument by publishing a description by Southwood Smith of the fever epidemic in the metropolitan Unions.⁽¹⁾ The Hill Coolies that year received from the Whigs attention and abundant sympathy, Chadwick observed drily, but nothing was done for the helpless population of the great towns.⁽²⁾ Eventually, in August 1839, the Bishop of London, who coupled the experience of a London parish priest to his episcopal authority and influence, addressed the Lords on the text of Southwood Smith's report, and moved that an inquiry be made into the sanitary condition of the labouring classes.⁽³⁾ No money was voted, no arrangements made to facilitate the investigation; a curt note communicated the resolution of the House to the Poor Law Commissioners.⁽⁴⁾ As Chadwick commented, "the inquiry seems to have been barely tolerated".⁽⁵⁾

The investigation thus begun in 1839 was not completed until 1842, though it was in the hands of a man who, in conducting the Factory and Constabulary inquiries, had shown that he could amass his evidence and present his conclusions in a matter of weeks. Shortage of money, the indifference of his

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1. "Fifth Annual Report of the Poor Law Commissioners", 1839. Appendix C, No. 2. "Report on the Prevalence of Fever in Metropolitan Unions, during the year ended 20 March, 1838", by Thomas Southwood Smith, pp. 160 - 171.
2. E.C., "Notes on Lord Normanby's speech", MS, 1844.
3. *ibid.* The Bishop's speech seems to have been missed by Hansard's reporter.
4. E.C., "Memoranda of answers to the imputations of blame in respect to alleged delay to adopt sanitary measures", MS, 13 July 1844.
5. E.C., "Notes on Lord Normanby's speech", MS, 1844.

superiors, a change of Government, but most of all the intrinsic complexity of the subject, all combined to drag out the inquiry. "No money is allowed the Board for the compensation of professional men of eminence and only Honorary service can be asked", he warned Dr. Hodgson, Peel's physician, requesting him to superintend an inquiry in Birmingham.⁽¹⁾ Yet Parliament was considering a proposal to settle an annual allowance of £30,000 on the Queen's Consort! "The grant of £30,000 for the purposes of a general system of education by which several hundreds of thousands of children in various ways could derive benefit, was fiercely resisted", Chadwick wrote in disgust, "The grant of the same sum of money for the benefit of this one young man will be granted with adulations of virtues which he has yet had no opportunity of displaying".⁽²⁾

The investigation had been in progress eighteen months when a well-intentioned but impatient Member of Parliament, Robert ~~XXXXX~~ Aglionby Slaney, obtained a Select Committee on the Health

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1. E.C. - Dr. Hodgson, 13 November 1839.
2. E.C., "Memoranda. For consideration in respect to the young Prince Albert's proposed allowance to be as considerable as that to the old Princes Royal", MS, n.d. It is interesting to note to what objects Chadwick himself would have devoted the £30,000. The money which would be spent on equerries and gold sticks, chamberlains and grooms of the stole, he calculates would provide six or more normal schools to rescue the children of the labouring classes from juvenile delinquency and give them instruction valuable both to themselves and to society; it would provide twenty stipendiary magistrates to take the administration of justice out of suspected hands, such as those of masters who enforced the law against their own workmen; it would pay the salaries of three or four new Judges to deal with Chancery arrears, it would establish a government department to regulate travel by steamships and railways, or found a school for civil engineers, or provide public walks and gardens, libraries and museums. "Is it better that this sum £30,000 should be given to some few sons of wealthy lords, than that the children of those who toil for our revenue, should go on without education or care from the state"?.

of Towns.⁽¹⁾ He "must be doing something in it", snorted Chadwick, who resented the trespass.⁽²⁾ The principal witnesses were medical men whose depositions had already been taken by Chadwick, and the valuable portions of the evidence were repetitions of the replies he had elicited. "The remedial measures recommended were chiefly Boards of Health, which had been tried and^{had} failed, and off hand and easy generalities, which could be reduced to little practice".⁽³⁾

The report of Slaney's Committee, however, prodded the Government into a show of action. Casting about for popular measures as the Home Secretary of the weak and failing Whig Ministry, Lord Normanby suddenly seized upon the sanitary question, and in 1841 introduced three Bills, "for the improvement of certain boroughs", "for regulating buildings in large towns", and "for the better drainage of large towns and villages".⁽⁴⁾ Chadwick's annoyance at this step, though it was sharpened by affronted amour propre, is understandable. The

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1. "Report from the Select Committee appointed to inquire into the circumstances affecting the Health of the Inhabitants of large towns and populous districts, with a view to improved sanitary regulations for their benefit", 1840 (384) XI.277. Their principal recommendations were ("Report", 17 June 1840, pp. xv - xx):
 1. A General Building Act.
 2. A General Sewerage Act.
 3. A Board of Health in every town of a certain size, to be appointed by the Guardians, Town Council, or ratepayer.
 4. An administrative authority, distinct from the Board of Health, for drainage and sewerage.
 5. An Inspector, appointed by the ratepayers or the Guardians, to enforce sanitary regulations.
2. "Notes on Lord Normanby's Speech", MS, n.d. 1844.
3. *ibid.*
4. Normanby introduced a single Bill "for the better drainage and improvement of Buildings in large Towns and Cities" on 29 January 1841 (Hansard, vol. 56, pp. 133 - 9). In Committee this was split first into two, and later into three separate measures. (1) "For the Improvement of Certain Boroughs", 1841 (300)(338) I.29.55; 1842 (34) I.119; (No.2) 1842 (53) I.145. (2) "For Regulating Buildings in Large Towns", 1841 (302)(339) I.93.125; 1842 (33) I.287; 1842 (52)(270)(371) I.319.351.367. (3) "For the better Drainage of large Towns and Villages", 1841 (301) II.221; (No. 2) 1841 XX (350) II. 239.

investigation by the Poor Law Commission was still in progress; the results of the local inquiries were still coming in; and Chadwick's general report was as yet a series of massive fragments. The Home Secretary now imposed a ban on the continuance of the inquiry, and when Chadwick got a friend in the Lords to ask for the production of the local reports the request was refused point blank. "A manifest determination was evinced to give the labours in the Poor Law department the go by, on this subject. The government was determined to have the exclusive merit".⁽¹⁾ Chadwick appealed for support to the Tory Lord Liverpool, who agreed that it was an "indecent and improper proceeding"⁽²⁾, but declared "I cannot suppose that Lord Normanby can mean to hurry a measure such as a general building and town draining bill thro but probably his object has been to give himself and his party as much relief as possible by an apparent activity in this matter".⁽³⁾

The ill-constructed Bills, concocted, as Chadwick judged, by Home Office lawyers and palace architects, fell to pieces in Committee, and the wreckage was bequeathed to the Tories, in whose hands it remained for three years more an impending threat to the progress of true reform. Chadwick, while pursuing his own inquiries, fought simultaneously a running battle against the principles of these Bills, which were based upon a hasty and superficial view of the subject, embodying technical recommendations which were out of step with the best contemporary developments, and revealing a timid anxiety to avoid any large scale administrative experiments.⁽⁴⁾ They were,

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1. "Notes on Lord Normanby's Speech", MS, n.d. 1844.
2. Lord Liverpool - E.C., 3 September 1841.
3. Lord Liverpool - E.C., 31 August 1841.
4. Cf. a number of fragmentary memoranda, e.g. "Notes on the multiplication of officers", n.d.; "Memoranda on bills for the regulation of buildings, 1844". The most detailed criticism is given in his "Draft Report on an Analysis of Legislative Measures for ~~the~~ Sanitary Improvement proposed before the issue of the Commission", drawn up for the Health of Towns Commission in 1844.

he told the Government, Bills "to make drains to run without water"; which prescribed that house drains should be of brick and at least 9 inches in diameter, though a 3 inch tile pipe at one quarter the cost was much superior in action; which showed more concern to guard against the remote chance of the labourer's house falling about his ears or catching fire from the house next door than to provide for sanitary fundamentals; which contemplated the payment in fees to surveyors of sums greater than the cost of the drains themselves. They would put the house drainage under one officer and the main drainage under another, and would impose on property owners immediate charges for improvements which in some cases would amount to a confiscation of the entire annual value of their property. "To apply a remedy with the least possible introduction of new machinery" had been Normanby's professed aim.⁽¹⁾ He proposed in fact to utilise for his Drainage Bill the old machinery of Commissions of Sewers, whose inefficiency in the past had been amply demonstrated, without taking any safeguards that their powers would be better exercised in the future; and for the execution of the Building Bill to permit Borough Councils to appoint surveyors, who would be allowed to retain their private practice and would undergo no scrutiny of their professional competence.

The downfall of the Whigs in September 1841, when Lord Melbourne thankfully surrendered the Government and the deficit to Sir Robert Peel, brought a double benefit to the sanitary movement. First, out of a robust belief that the measures he had introduced would have wrought untold good for the lower classes, Lord Normanby discovered in opposition a fervent enthusiasm for sanitary reform, together with an immense indignation at Tory tardiness; and he proved a valuable ally to Ashley and Southwood Smith in the Health of Towns Association. Secondly, Chadwick was given permission to finish

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1. Hansard, 12 February 1841, vol 56, p. 539.

his report, which he was firmly convinced would never have appeared if the Melbourne Government had retained office.⁽¹⁾ Towards the end of 1841 he was instructed to complete it so that it might be put into circulation before the next meeting of Parliament.

Another six months elapsed, however, the 1842 session approached its close, and still the report had not appeared. The Commissioners concurred cautiously with Chadwick's draft, but urged him to prune some of the more offensive passages. "If your report is to suffer mutilation I at least trust it will not be curtailed of any material parts", wrote an indignant friend, "It is necessary in legislation to pay respect to public opinion, but surely the same deference to prejudice and ignorance is not to be maintained in expository works of which the professed object is to enlighten the people, and prepare the way for wholesome reforms".⁽²⁾ The report was originally printed with the Commissioners' names appended; but G.C. Lewis opposed its adoption on the ground that it was calculated to give offence to Commissioners of Sewers and similar authorities. It appeared in its final form only after Nicholls had intervened on its behalf, and Chadwick had undertaken to bear personally any responsibility or unpopularity that might attach to it. "It contains a great deal of good matter", G.C. Lewis remarked to George Grote, with an air of giving the devil his due, "and, on the whole, I prefer it to anything else he has written. We shall present it shortly as his report, without making ourselves responsible for it".⁽³⁾

The raw material for the "Sanitary Report" falls into

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1. W.C. - J. Simpson, 25 April 1844: "Under his (i.e. Normanby's) influence the sanitary report itself was stopped and never probably would have appeared but for his removal from power".
2. Rev. Whitwell Elvin - B.C., 31 May 1842.
3. G.C. Lewis - G. Grote, 13 March 1842 ("Letters of Sir George Cornwall Lewis", ed. Sir G.F. Lewis, 1870, p. 119).

three main categories. A set of inquiries, based on the conclusions of the "Fever Report" of 1838, was directed to the Assistant Poor Law Commissioners and the Union medical officers in all parts of England, Wales, and Scotland.⁽¹⁾ The replies to these questions were supplemented by material collected by Chadwick in personal interview or correspondence with surveyors, builders, prison governors, clergymen, lawyers, police officials with anyone whose position brought the facts beneath his constant observation. In addition, in obedience to his own canons of research by which the investigator was adjured not to rest content with the testimony of others, however well informed and intelligent they might be, Chadwick himself made a number of excursions to the provinces.⁽²⁾ There are passages in the "Sanitary Report", as in other reports of his early period, which in their raciness of description, their vividness of detail, and their eye for character remind the reader that Chadwick had served his apprenticeship in Fleet Street. There is humour, too, "that keen sense of the droll and the humorous even in the midst of the horrible and squalid, which, his friends say, Mr. Chadwick possesses in a degree quite remarkable".⁽³⁾ As the years went by and one bulky report succeeded another, as the ideas lost their newness, and spontaneity was crushed beneath the wheels of the official grind, Chadwick became more and more prolix and pedestrian in his style, and the spark of ironic humour was extinguished by the atmosphere of serious intention; but in the "Sanitary Report" he is still fresh, his strong, plain style is not overweighted by material, and his confidence has not yet degenerated into a querulous assertiveness.

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1. The terms of reference were widened to include Scotland in January 1840.
2. See, for example, the description of his inspection, in the company of Neil Arnott, Sheriff Alison, and a police superintendent, of the district of Glasgow lying between Argyll-street and the river ("Sanitary Report", p. 24).
3. Article by Professor Masson, "North British Review", vol. xiii, 1850, p. 47.

The complacency which marks Chadwick's first essay in the "Westminster Review" gives place in the "Sanitary Report" to a note of grim urgent warning. His critics complained that he had become a social hypochondriac, who scanned society with a morbid eye, looking for the symptoms of disease and not observing the general condition of health. He might well have replied in the words of the "Times": "Possibly, there may be progress as compared with a past age, but there is not as compared with a past epoch in the present age. It may be that working men are better housed than at the time of the Great Plague, but such a comparison is merely trivial in presence of the fact that, in spite of all that sanitarians can do, the dwellings of a great part of our population are, in the present age, every day becoming worse".⁽¹⁾ The age-long balance between birth rate and death rate, between human fecundity and the adversities and accidents of human environment, had been upset decisively between 1780 and 1810 by a steep fall in the death rate. Humanitarian activity, advances in empirical medical knowledge, a more abundant food supply, the rising level of urban wages, the work of Improvement Commissioners and joint stock companies, all these together had brought down the death rate of Londoners in 1811 to 26 per thousand --- little more than half the figure for 1750. But after 1810 there was no great fall in the death rate till the seventies; and the difference between a crude death rate of 23 per thousand in the middle decades of the century and one of 16 per thousand at its end is a rough measure of the toll of slum housing, inefficient sewerage, and impure water supplies in the raw industrial towns. Year by year the great towns continued to grow, partly by a natural increase, but even more by the influx of immigrant workers whom the expanding industries attracted across the St. George's Channel and from the rural areas of England and Wales, till by 1851 half the population was urban, "a situation that

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1. "Times", 5 November 1853.

had probably not existed before in a great country, at any time in the world's history".⁽¹⁾

To the administrative difficulties raised by this unprecedented growth and concentration of the population very little hard thinking had been directed by the departments of State before the publication of the "Sanitary Report"; and the engineers who had produced the railway locomotive and the steamship had neglected to apply the same technical skill to the complex problems of human aggregation. In the building encyclopaedias of the time the word "ventilation" did not once occur from beginning to end. Houses rated at £1,000 or more in the newly founded colony of Belgravia reeked with exhalations from faulty house drains. Perhaps not one ~~house~~^{home} in a whole street of middle class residences possessed a bath.⁽²⁾ When Lyon Playfair examined the condition of Buckingham Palace, he found it so bad that the Government did not dare to publish his report.⁽³⁾ While the middle and upper classes lived in such splendid squalor, the lower classes seemed in danger of being engulfed and poisoned by their own excretions.

The localising of "zymotic" or infectious diseases in the narrow courts and alleys of the poor had been frequently noted by those eighteenth century physicians whose broad sympathies or straitened means drove them to practise in the lower quarters of the towns. This observation --- that outbreaks of fever were correlated with insanitary conditions --- gave rise to the characteristic medical theory of the public health reformers. According to this "pythogenic" theory, disease was caused by an "unknown something in the atmosphere" acting upon the gases from animal and vegetable decomposition, given off, for example, by a midden, a stagnant

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1. J.H. Clapham, "Economic History of Modern Britain", vol. I, p. 536.
2. E.C. - F.O. Ward, 7 October 1849.
3. "Memoirs and Correspondence of Lyon Playfair", ed. W. Reid, p. 94.

sewer, an overcrowded churchyard, a slaughter house or a tanner's yard. Any of these, in combination with the epidemic influence, might produce, by a kind of spontaneous generation, an outbreak of typhus, or perhaps --- since this promiscuity of filth brought forth an uncertain progeny --- of typhoid or cholera. Certain corollaries followed from the theory. The transmission of disease by contagion was a fallacy, and quarantine therefore an archaic survival from less enlightened days; Southwood Smith showed his faith in this conclusion by taking his grand-daughter with him when he walked the fever wards.⁽¹⁾ Offensive smells were not necessarily injurious to health, but the sense of smell was "the sentinel placed at the portals of life".⁽²⁾ Impure air and the reek of filth, not the privations of poverty, were the predisposing circumstances which favoured the spread of disease, the chief sufferers being not paupers but independent labourers, artisans, and small shopkeepers, who were not destitute of food and clothing. Nor was it chiefly the weak and sickly who fell victims, for a large proportion were in the prime of life, at the height of their productive powers, and with dependent families, who, on the death of their parents, must be cast upon the rates. The comfortable belief was thus discredited that the unfit and superfluous, the paupers and the weaklings, were beneficently cut off by nature; and if the economist was wrong, so also was the philanthropist, who thought that fever was caused by destitution, and could be combated by grants of money, fuel, and blankets.

That disease was traceable to specific infections had been demonstrated clearly enough during the eighteenth century, and the pythogenic theory could be sustained only by ignoring some very obstinate facts, to which Chadwick closed his eyes to the end of his life. To assert that fever might be bred in

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1. C.L. Lewes, "Dr. Southwood Smith", p. 77.
2. General Board of Health, "Report on a General Scheme for Extramural Sepulture", 15 February 1850, p. 11.

any cesspool or uncleansed ditch was, as William Budd remarked, "precisely on a par with the philosophy which led the ancients to believe that mushrooms are bred of cow-dung, alligators of the mud of the Nile, and that bees, as Vergil sang, may be engendered in the entrails of a putrid ox".⁽¹⁾ During the "Great Stink" of 1858, when the stench of the polluted Thames closed the law courts, emptied the river steamers, and assumed the proportions of a national calamity second only to the Indian Mutiny, pestilence on an enormous scale was gloomily prophesied; the death rate for the year was, in fact, below the average, and there was a notable diminution in the amount of fever, diarrhoea, and dysentery.⁽²⁾

Radically wrong though this theory was, however, it was given plausibility by its demonstrable effectiveness in practice. To counter a disease it is not essential to know the mode of its transmission; and, conversely, a disease is not conquered once its machinery of infection has been discovered. Thus, though the mosquito has been indicted, malaria has not been banished from the tropics; while, on the other hand, leprosy, the "sweating sickness", plague, cholera, typhus, and typhoid were all uprooted from England before their generating bacteria were detected. They retreated because the environmental conditions which favoured their advance were vanishing, for, from the point of view of preventive action, the soil in which a disease flourishes is no less important than the seed from which it springs. For a movement which aimed at clearing up the dark corners of the towns no sounder doctrine could be taught than that immunity from pestilence was to be secured in proportion to the intelligence and energy which were directed towards the removal of its localising conditions. The "pythogenic theory" may well serve as an example of those "fruitful errors" which,

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1. William Budd, "Typhoid Fever" (1874), p. 153.
2. Cf. the description of this historic stink by Budd, op. cit., pp. 141 - 2.

as Vaihinger reminds us, have in the history of thought so frequently produced sound practice out of false theory.⁽¹⁾

In the light of this theory Chadwick turned to the examination of the returns from the local Registrars which by the end of 1839 were pouring in from 553 districts, giving for the first time in history a reliable and comprehensive picture of the causes of national ill-health and mortality.⁽²⁾ In the first year, 1838, for which returns were made, he found that the deaths in England and Wales from zymotic diseases numbered 56,461. It was as if the whole county of Westmoreland or Huntingdon "were entirely depopulated annually, and were only occupied again by the growth of a new and feeble population living under the fears of a similar visitation".⁽³⁾ From typhus alone the yearly slaughter was double the casualties suffered by the allied armies at Waterloo. The "Fever Bill" footed every year by the nation, in the form of charges for medical attendance, for the support of widows and orphans, for labour lost by sickness, for the shortening of the average working life by premature mortality, was an immense and growing burden.⁽⁴⁾

The lesson of Chadwick's Report was that the great mass of this mortality and sickness was preventible. He demonstrated this by a simple but conclusive device, which came as near as practicable to experimental verification in a field where laboratory methods of control and observation were out of the question. He took the average age at death for various classes of the community, inhabiting different quarters of the towns, so revealing at a glance the disparities concealed

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1. H. Vaihinger, "The Philosophy of 'As If'", 2nd. ed. 1935, pp. 45 - 6.
2. For the deficiencies of the local returns, due partly to the primitive diagnosis and confused nosology of the time, and partly to the low qualifications of the Registrars and the defective administrative arrangements for recording the cause of death, see Chadwick's comments in the next chapter.
3. "Sanitary Report", p. 3.
4. One of Chadwick's correspondents, the Rev. G. Lewis, calculated that the "fever Bill" of Dundee from 1833 to 1839 amounted to £175,676 12s., or £25,096 13s. per annum. (ibid. p. 209).

beneath the general averages for the country. (1)

District	Gentry and professional classes.	Tradesmen	Labourers
Derby	49	38	21
Bolton	34	23	18
Leeds	44	27	19
Truro	40	33	28
Bethnal Green	45	26	16
Whitechapel	45	27	22
Strand Union	43	33	24
Kensington	44	29	26

The age at death of the individual was thus shown to bear a direct relation to his rank in society. Now the circumstances of the labouring classes differed in two main respects from those of the gentry; they enjoyed a smaller income, and they inhabited dirtier districts, dirtier streets, and dirtier houses. Which of these factors, income or environment, was responsible for the different expectation of life of the two

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1. "The slow general improvement, made up by the great improvements of particular classes, is consistent with the positive deterioration of others. The average age of death of the whole of the working classes we have seen is still no more than 22 years in the whole of the metropolis. In large sub-districts, if we could distinguish accurately the classes of deaths, the average would be found to be not more than half that period: a rate of mortality ascribable to increased over-crowding and stationary accommodation, greatly below anything that probably existed at the commencement of the century". (E.C., "Supplementary Report on Interment in Towns", App. 11, p. 242). Criticising the statistical methods then in use, Chadwick pointed out that the practice of treating the proportions of deaths to the population and the average ages of death as being equivalent was very misleading and sometimes exaggerated the chances of life to an extent double the real amount. Thus, in St. Margaret's parish, Leicester, the proportion of deaths to the population was 1 in 36.5; examining the district street by street Chadwick found that in streets which were well drained the average age at death was 25.5, in partly drained streets 21, and in undrained streets 17 --- the general average being 21. (ibid., p. 241).

Many years later he was still urging that, in framing statistical returns, it should be recognised as a principle
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classes? It was proved --- to Chadwick's satisfaction --- that the labouring classes received on the average a real income sufficient to keep them well above the level of starvation⁽¹⁾; the greater mortality from which they suffered must therefore be ascribed to the physical conditions amongst which they lived, and he illustrated this conclusion by "Sanitary Maps" of Bethnal Green and Liverpool, which showed the black crosses of death crowding thickly in the foulest and most overcrowded districts. It followed that if those physical conditions could be improved, there would be a corresponding improvement in the statistics of sickness and death.

Fever, then, was not the result of destitution; on the contrary, destitution usually came on the heels of fever, and

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(Continued from previous page) that every place had its own circumstances which governed its mortality, and that the operation of those special circumstances should not be blurred by inclusion in general averages. "One chief objection to the weekly returns from the Metropolis is that for any practical conclusions they are misleading; all "means" such as these returns only give between extreme divergences of conditions, being virtually misrepresentations. And these "means" are particularly injurious in glossing over the different rates of exposure of different classes to preventable diseases". The lower districts of towns were brought under a general average with the well-to-do, thus conveying a false impression that their administration was unobjectionable. "Particular care ought to be taken to make preventable diseases as little as possible the subject of averages with the other classes of disease or of general averages of any kind, to avoid the apologetic conclusion for inaction by local Boards of small owners, that nothing is required to be done for the cases "are not above the average", it being no consolation to any individual that he died because his death goes to make up a moderate average or a statistical law of mortality, any more than it is an extenuation of the administration of the police of a district or any excuse of default of pursuit in any case that "murders and robberies are not above the average", and that indeed the place is well conditioned, for they are below the average of Greece or of Italy". ("Memorandum on the Returns of Mortality for Cities", MS, n.d. c. 1860 - 70.

1. See below, p.123.

the poor's rolls were the pedigrees of generations of families thus pauperised. Of the 112,000 orphans and 43,000 widows receiving poor relief in 1840, Chadwick estimated that 100,000 orphans and 27,000 widows had been reduced to dependence by the death of their breadwinner from some sort of zymotic disease, arising from causes which were known and removable.⁽¹⁾ These pauper orphans and widows were a legitimate concern of the Poor Law Commission. Chadwick, however, looking beyond the walls of the workhouse, went on to demonstrate that preventible disease had economic and moral effects upon society at large far more serious than the additional burden cast by them upon the ratepayers. Economically it represented a heavy annual drain upon the country's most valuable capital, its strongest and most experienced workers. During the Napoleonic Wars Bethnal Green and Spitalfields had raised a regiment of volunteers, but in 1840 the recruiting officers would find it difficult to get together a grenadier company from the same districts; yet the wealth of the nation was ultimately dependent upon the bodily strength of the labouring classes, which in the past had been so superior to that of other nations that English navvies had been imported to carry out railway construction on the continent.

But the moral effects were the gravest of all. It was often alleged that the misery of the poor was chiefly the result of their own intemperate habits. They had few or no pleasures to wean them from intemperance, replied Chadwick,⁽²⁾

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1. "Sanitary Report", p. 192.
2. He urged the Select Committee on Intemperance (11 June 1834, Q. 325) to consider "whether sober habits may not be efficiently promoted indirectly by the formation of cricket grounds, of public walks; horticultural gardens in the neighbourhoods of the smaller provincial towns, and by the institution of zoological repositories in the neighbourhood of the larger towns; and by the free admission of persons decently dressed to them on Sunday, after the morning service an over-strict and Judaical observance of the Sabbath (being) equally prejudicial to true religion and temperance".

and in the depressing conditions of their lives, education ran a losing race with gin. "Seeing the apparent uncertainty of the morrow, the inhabitants really take no heed of it, and abandon themselves with the recklessness and avidity of common soldiers in a war to whatever gross enjoyment comes within their reach".⁽¹⁾ Cleanliness and decency were impossible for the family who occupied a single room in a house unprovided with water or a privy. Overcrowding led to bastardy and incest, and forced the children on to the streets as thieves, beggars, and prostitutes. The evidence was overwhelming "how strongly circumstances that are governable govern the habits of the population"⁽²⁾, how filth and overcrowding acted as "physical barriers to improvement" against which "moral agencies have but a remote chance of success".⁽³⁾ "I have often said", the Stipendiary Magistrate of the Thames Police Office had once remarked, "that if empty casks were placed along the streets of Whitechapel, in a few days each of them would have a tenant, and these tenants would keep up their kind, and prey upon the rest of the community. I am sure that if such facilities were offered, there is no conceivable degradation to which portions of the species might not be reduced. Allow these tub-men no education, and you would have so many savages living in the midst of civilisation. If you will have marshes and stagnant waters you will there have suitable animals, and the only way of getting rid of them is by draining the marshes".⁽⁴⁾ The statesman and the employer both had good reason to fear the animals bred in the undrained marshes of the slums. In abridging the adult years of the labouring classes, wrote Chadwick, "noxious physical agencies substitute for a population that accumulates and preserves instruction, and is itself progressive, a population that is young, inexperienced, ignorant, credulous, irritable, passionate, and dangerous, having a perpetual tendency to moral as well as physical

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1. "Sanitary Report", p. 131.

2. *ibid.*, p. 44.

3. *ibid.*, p. 134.

4. *ibid.*, pp. 135 - 6.

deterioration".⁽¹⁾ At the Manchester torchlight meetings, amongst the mobs which had gathered under the influence of "anarchical fallacies", observers had noted a striking preponderance of youths. Men of mature age, with sound views on the relationship between capital and labour, were comparatively few in number, and tended to stay away from Trade Union meetings where they found themselves overborne by "mere boys". Thus, as fever sometimes broke from its reservation in the poorer quarters and crept out to ravage the broad squares and airy streets of the West End, so might Trade Unionism and Chartism be born amidst the neglected inhabitants of the slums, and emerge to threaten the established order. Chadwick drew his respectable hearers to the edge of the pit, and bade them observe the monsters they were breeding beneath their feet.

Writing in 1844 Engels castigated the "utter ignorance on the part of the whole middle class of everything which concerns the workers", and remarked how in Manchester, where the business and shopping centre was girdled by slums, the bourgeoisie could yet ride into town without passing through or giving a thought to the "grimy misery that lurks to the right and the left".⁽²⁾ This sweeping condemnation is a little hard on Chadwick, whose "Sanitary Report", grimmer, more comprehensive and detailed,

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1. He told an American educational reformer: "The more I go on the more extensive and cogent does the evidence appear to me that the influence of the physical condition on the moral condition has been too much overlooked as an element of education From various sources, from your newspapers and from the proceedings of large masses, from such events as the late Philadelphia riots I gather confirmation of the conclusions I collect from your census and your mortality tables, and of the general conclusion that a young population must be a passionate and immoral and an untrustworthy one. Strange as it may seem, the better drainage and paving: better construction of your houses and relief from overcrowding, better ~~xianning~~ internal and external ventilation and cleansing would be essential steps to the moral improvement of your population". (E.C. - Horace Mann, 3 June 1844).
2. F. Engels, "Condition of the Working Class in England in 1844" (1892 ed.), pp. 13, 46.

better documented than Engels' own study of the domestic conditions of the English working classes, had been published two years before.⁽¹⁾ But Chadwick would have agreed that the lanes and alleys of the poor, "Little Ireland", the wynds of Edinburgh and Glasgow, the rookeries of St. Giles', Villiers Square, and Golden Square, were as remote from the experience and imagination of the great majority of the middle and upper classes as some Punjab village or South African kraal.⁽²⁾ After 1842, however, there could be no excuse for ignorance, though interest might continue to find arguments for inaction. In the language of eyewitnesses Chadwick gave descriptions of removable causes of disease, to be found not only in the industrial cities, but even in the small country towns and villages, which the sentimental delighted to paint as the homes of rustic comfort and rude agricultural health. The most damning evidence came from the Medical Officers of the Poor Law Unions, almost the only members of the professional or middle classes whose duties brought them into close contact with the lower classes in their houses. Thus, the Medical Officer to the Liverpool Union reported: "In consequence of finding that not less than 63 cases of fever had occurred in one year in Union-court Banastre street (containing 12 houses), I visited the court in order to ascertain, if possible, their origin, and I found the whole court inundated with fluid filth which had oozed through the walls from two adjoining ash-pits or cess-pools, and which had no means of escape in consequence of the court being below the level of the street, and having no drain. The court was owned by two different landlords, one of whom had offered to construct a drain provided the other would join him in the expense; but this offer having been refused, the court had remained for two or three years in the state in which I saw it; and I was informed by one of the inhabitants that the fever

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1. Engels and Chadwick do not appear to have become familiar at any time with each other's work.
2. Chadwick and Arnott were regarded with astonishment when they visited the Edinburgh wynds. The inhabitants told them that they had not witnessed for many years the approach of persons of superior condition. ("Sanitary Report", p. 342)

was constantly recurring there. The house nearest the ash-pit had been untenanted for nearly three years in consequence of the filthy matter oozing up through the floor, and the occupiers of the adjoining houses were unable to take their meals without previously closing the doors and windows. Another court in North-street, consisting of only four small houses I found in a somewhat similar condition, the air being contaminated by the emanations from two filthy ruinous privies, a large open ash-pit and a stratum of semi-fluid abomination covering the whole surface of the court".⁽¹⁾

It was true, as Ashley observed, that "one whiff of Cowyard, Blue Anchor, or Baker's Court, outweighs ten pages of letterpress"⁽²⁾; but what print could do to shock and shame, what the exhaustive cataloguing of horrors could do, what the inescapable testimony of a multiplicity of witnesses could do, was done by Chadwick in the most powerful assault upon the sensibility of the ruling classes that had ever been attempted. All led to the same general conclusions: that the health and comfort of civilised man, urban man, depended upon arrangements for bringing his water supply into the towns and taking his wastes out, and for ensuring that in massing together all individuals should continue to receive their due share of light and air; that in nineteenth century Britain those arrangements were grossly inadequate; and that their inadequacy must be ascribed not so much to lack of knowledge as to a failure to apply such knowledge as was readily available. It was not the intractability of brute physical facts which formed the main obstacle to the cleansing of the towns, but the plain human stupidities of indifference, self-satisfaction, lethargy, and stubborn habit; it was not that the problem was too difficult, but that the mental effort directed towards its solution was too puny.

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1. "Sanitary Report", p. 31.
2. E. Hodder, "Life and Work of the Seventh Earl of Shaftesbury", vol. I, p. 361.

In drainage, water supply, ventilation, in all the essential elements of urban life, the existing practice was far below the existing science. Methods of drainage exhibited the crudest empiricism, an ignorance of elementary hydraulics, and a conservatism which was blind to the benefits of the simplest improvements. Street sewers were immense brick caverns, flat-bottomed and flat-sided, washed only by a feeble trickle of water. They were built on the hypothesis that they would accumulate deposit, and were made of brick so that they might be the more readily opened; and at intervals of five or ten years the streets would be excavated and men would scoop up the deposit in pails, raise it by windlass to the road surface, and leave it there in noisome heaps to be collected by the scavenger's carts.⁽¹⁾ House drains were also made of brick, and in construction were no better than extended cesspools, fitted rather to retain deposit than to carry it away⁽²⁾; and it was usual to lay down for a single house a drain with capacity sufficient to remove the refuse of a thousand. Rarely in the design of sewers and house drains was there any recognition of the elementary principle of hydraulics, which forms the basis for the modern system of water-carriage, that by concentrating the flow of water in a smooth circular channel its scouring power may be increased. Only in a few middle

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1. In an undated memorandum Chadwick describes how this offensive process first set him thinking of the possibility of water-carriage: "In passing homewards the Chief Investigator saw a mass of this filth spread upon the surface of the street in a main thoroughfare. A sewer was being cleansed by the deposit being taken out in buckets for removal by hand labour and cartage. He turned back to avoid the stench: when he was arrested, and obliged to turn again by another accumulation, made for the like process. Being thus confronted, the question forced upon him, was this process really necessary? He enquired and was assured by the most eminent engineers and sewers commissioners that it really was the best possible arrangement, but he was obstinate in his disbelief that it was not: he got it into his head that it might be removed in water, and on enquiry he learned that there was one surveyor who had the same notion".
2. "Have you any drains in this house?", one woman was asked. "No, thank God", she replied, "We have none of them stinking things here". (~~XXXX~~ "Times", 23 January 1848).

class houses had the water closet replaced the cesspool or the privy midden; and in London its introduction was obstructed by the Commissions of Sewers, who imposed an illegal fee on any householder who sought permission to drain his house into the public sewer. Moreover, there were profits to be made out of filth which would be threatened if it were removed by the expeditious water closet. Vast dumps of ashes, night-soil, rotting vegetables, straw, dung, refuse of all kinds, in thousands of tons occupying hundreds of cubic yards, the sweepings of the streets, the offal of the slaughter-houses, and the contents of the public privies, were built up in the midst of densely populated districts as the stock-in-trade of dealers who retailed it to farmers by the cartfull and the barge-load.

(1) In London, however, no refuse, except coal ashes, cinders, and dust which were used in the making of bricks, paid half the expense of cartage, and transport costs limited the use and deposit of the refuse within a radius of three miles beyond the line of the district post.⁽²⁾ The charge for emptying cesspools averaged £1, and in metropolitan parishes remote from the agricultural areas the expense, to people who were usually in debt at the end of each week, acted as a complete barrier to cleanliness. Thus, as the great towns expanded and their centres grew ever more distant from the country districts, as the numbers of their inhabitants grew and the volume of their wastes increased in proportion, the burden became too heavy for the small scavenging contractors, and the traditional methods of sewage disposal were breaking down. The result was the steady secretion of filth in basements and backyards.

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1. The famous dunghill of Market-street, Greenock, described in the "Sanitary Report", pp. 46 - 7, which the Webbs consider "the climax of horrors" (S. and N. Webb, "Statutory Authorities", p. 339), was rivalled in many other towns; cf. the "Ash Yard" of Gaywood, Norfolk, which was estimated to contain some 2,025 tons of refuse. (W. Lee, "Report to the General Board of Health on Gaywood", April 1850, pp.9 - 10.)
2. One scavenging contractor confessed, "I have given away thousands of loads of night-soil: we do not know what to do with it". ("Sanitary Report", p. 46).

In street paving and the arrangements for surface cleansing, Chadwick found the same waste and the same want of science. A road sweeping machine had been invented (by Whitworth), but the parochial authorities were reluctant to give up the old methods of hand-labour which provided employment for their paupers. Paving was commonly regarded as being required solely for the benefit of cart and carriage traffic, not as a means of cleanliness, and it was therefore usually confined to the main streets. Of 687 streets inspected by a voluntary association in Manchester, 248 were unpaved, 112 ill ventilated, and 352 contained stagnant pools and heaps of refuse and ordure. Yet the street cleansing of Manchester cost £5,000 a year; for which sum the first class streets and the large thoroughfares were cleansed once a week, the second class once a fortnight, and the third class once a month --- leaving untouched the courts and alleys where the poor lived, and where the cleansing was required daily.⁽¹⁾ The immediate expense was the objection usually raised to the extension of the street cleansing services. In London an annual bill of £40,000 was incurred; but, as Chadwick pointed out, two-thirds of this expense was accounted for by the cost of cartage, which would become unnecessary if the sewers were properly adapted to carry away refuse. So far were local authorities from realising that the sewers offered the most rapid, efficient, and economical means for the removal of refuse and mud from the road surface that in some towns the use of the sewers for this purpose was expressly forbidden under penalties in the local Improvement Act.

But the gravest deficiency of all, since it was the key to most sanitary improvements, was the shortage of water, not only for house cleansing and sewerage, but even for drinking, washing, and cooking. The water companies had got into the habit of intermittent supply at a time when their mains were made of hollowed out elm-trunks, which were not strong enough

to withstand the pressure of a constant supply. Though cast iron mains were now in use, they still clung to their old practices, and, fearing the expense of new plant, were prepared to argue that a constant supply was technically impossible. In London the companies supplied their tenants for two or three hours on three days of each week. With a show of generosity they had erected public fountains and stand-pipes in the streets and courts, where the poor were allowed to help themselves without charge, and round these, when the water was running, the inhabitants gathered to catch their supply in pails, fish-kettles, leaky casks, cans, and even soup-plates. The house wife who had to carry twenty pailsful a day, perhaps to the third or fourth floor, and bring down an equivalent amount of waste, was certainly not so grateful as the companies made out; and, as Chadwick remarked, since every house could have a constant supply for twopence a week, it was a pecuniary extravagance for even the lowest paid labourer to fetch water. "The interposition of the labour of going out and bringing home water from a distance acts as an obstacle to the formation of better habits", ran Chadwick's penetrating comment, "and I deem it an important principle to be borne in mind, that in the actual condition of the lower classes, conveniences of this description must precede and form the habits. It is vain to expect of the great majority of them that the disposition, still less the habits, will precede or anticipate and create the conveniences".⁽¹⁾ An efficient sand-filter had been introduced by James Simpson, the engineer to the Chelsea Water Works, in

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1. "Sanitary Report", p. 69. Even in middle class districts the register of the cistern was watched with an anxious eye, and the household amenities expanded or narrowed from day to day with the fluctuations in supply. Cf. a letter to the "Times", 14 July 1851: "Monday --- water six inches. Cook and housemaid on short allowance. Master's bath relinquished. Tuesday --- water one inch. Boiled vegetables and teas strictly forbidden. Wednesday --- cistern dry; water nowhere. Thursday --- the water on. Hurrah! Listen to that rushing sound. We shall drink --- we shall wash --- we shall bathe! Ah, in five minutes the stream ceases, and all our hopes are blighted".

1829, but more than half the metropolitan supply still passed untreated from the river to the consumer. It was hardly surprising that during the cholera epidemic of 1831 - 2, the poor in some districts were convinced that the water had been poisoned to destroy them by a Malthusian-minded Government. In general, throughout the country, the well, the ditch, the river which served also as the main sewer of the town, were the sources from which urban populations drew their water; and few towns had yet had the enterprise to look further afield for more abundant and purer supplies, which the technical advances of the age had made it possible to pipe and pump to them from upland gathering grounds.

Finally, Chadwick demonstrated how the immense expansion of the population had offered bounties to the shrewdness of the speculative builder and the "ignorance, cupidity, or negligence of landlords".⁽¹⁾ The census returns gave the impression that the number of houses had kept pace with the size of the population, but in actual fact every occupation under the same roof had been counted as a separate dwelling; and conditions in the growing towns were illustrated by Blackfriars' parish, Glasgow, where in the years between 1831 and 1841, the population had increased by 40 per cent. while the number of houses had remained the same.⁽²⁾ The labouring classes, obliged to dwell within convenient distance of their places of work, must take whatever accommodation they could get. In the old districts of the towns they crowded, from cellar to garret, the decayed and superannuated mansions abandoned by the rich.⁽³⁾ In the new suburbs no scrap of land seemed too narrow, too damp, or too close to a public midden, to be free from the activities of the jerry builder. Cellar dwellings, lacking drains or

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1. "Sanitary Report", p. 7.
2. *ibid.*, p. 121.
3. "The dwellings of the working-classes in London are generally houses that have been disused by the higher classes, and are let out to them". ("Report from the Select Committee appointed to consider the regulation of Buildings and the improvement of Boroughs", 1842 (372).X.161. Evidence of Richard Kelsey, Q. 1000).

conveniences of any kind; back-to-back houses, without the sweetening draught of through ventilation; closed courts, with a stand-pipe at one end and a privy at the other --- every obnoxious ingenuity in the economy of land and materials that the calculated self-interest of builders and landlords could devise, and the helpless necessity and blunted sensibilities of tenants could be obliged to accept, was to be found in London and the great provincial towns. No attempt had been made by the Government, apart from Lord Normanby's ill-considered Bills, to deal with these evils. Openings for light and air were actually penalised by the iniquitous Window Duties.⁽¹⁾ The chief concern of the legislature, as revealed in the Metropolitan Building Act, had been to prevent the spread of fires by requiring the construction of party walls of a minimum thickness; and no legal obstacle existed to bar the speculative builder from running up houses with walls one brick thick on undrained sites outside the jurisdiction of the Commissioners of Sewers and the District Surveyors appointed under the Metropolitan Building Act.⁽²⁾ Viewing the chaos of London,

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1. Cf. the evidence of W.E. Hickson ("First Report of Health of Towns Commission", 1844, vol. 2, pp. 238 - 240). "The legislature now says to the builder, plan your houses with as few openings as possible, let every house be ill ventilated by shutting out the light and air, and as a reward for your ingenuity you shall be subject to a less amount of taxation than your neighbours". On a twelve-roomed house with two windows to each room the charge was £7 5s. 9d.; if there were only one window to each room the charge was £2 4s. 9d. --- though, as Hickson pointed out, a difference of 10s. was sufficient to influence the poorer builders. "I spoke but lately to a man in humble circumstances who had put in his privy a single pane of glass; it was discovered by the assessor, and rather than pay the tax (the money being an object) the pane of glass was removed, and the opening bricked up". By 4 & 5 Will. IV c. 54 occupiers, if they were duly assessed to Window Tax in 1835, were permitted to open as many windows as they pleased. This step was rendered nugatory by the lawyers, who proved that nobody had been duly assessed to Window Tax in 1835!
2. "Sanitary Report", pp. 281 - 2. Chadwick calculated that such builders would gain one house in fees alone if they built forty or fifty fourth-rate tenements outside the boundaries within which the Act applied.

sprawling outwards without plan and without control, Chadwick sighed for the "great design" of Sir Christopher Wren, which, as he told a correspondent, "would from its regularity have facilitated and almost necessitated at a very early period a regular system of drainage below the streets and houses as well as have given a regular sweep of air and complete ventilation above them: the plan excluded all burial grounds all slaughterhouses and noxious trades and prevented the accumulation of inhabitants in courts and alleys. From what is now known of the state of health and the proportions of death, in districts similar to that which the whole of the City of London would have been if Sir Christopher Wren's plan for rebuilding it had been carried into execution there can be little doubt that its rejection has(entaile) on every succeeding generation an excess of one third of deaths: a proportionate abridgment of the duration of life, and the extensive extinction of families who then lived within the jurisdiction of the Corporation".⁽¹⁾ Christopher Wren and Edwin Chadwick between them would have made a good job of London.

As he thus surveyed the technical deficiencies in the planning and construction of essential public services, and the universal neglect of the lessons of science in solving the problems of the towns, it became obvious to Chadwick that he must become his own engineer. No one had yet taken the principles of hydraulics and the theory of structures out of the text books and applied them to town drainage, nor had any one yet thought of bringing together all the practical improvements in water supply and housing that the inventive genius of the period was now making readily available. Chadwick boldly annexed to himself this vast new province. There were, indeed, at the beginning few to contest his title. The Institute of Civil Engineers had been founded as long ago as

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1. XXXXXXXXX, n.d. There is a tribute to Wren's plan in the "Sanitary Report", p. 288. "Drafts of communication in answer to Commissions of Sewers", MS, n.d. (1843).

1818, but its members were still struggling to establish recognised standards of professional competence. Before the eyes of the ablest of the profession, the railway projectors dangled the richest prizes that their talents could command. The engineers of the Water Companies were wedded to the restrictive policies of their employers. In rural districts the highway surveyors were little better than "ditch casters" or common labourers, while in the towns they were frequently decayed builders or tradesmen, few of whom were capable even of drawing, and none placed by education, salary, or station above the temptations of bribery. The surveyors of the metropolitan Commissions of Sewers were little better. When one Commission advertised for a surveyor able to use a spirit level, the novel demand set surprised candidates to the task of mastering that complicated instrument.⁽¹⁾ Those "wretched empirics the modern engineers!" It was a continual lament with Chadwick that there were "marvellously few" trustworthy men amongst them; "a more ignorant, or a more jobbing set of men, less to be trusted, as the difference of their estimates and their expenditure will shew, than the common run of men who dub themselves with the title of engineer and pretend to science I have rarely met with".⁽²⁾ Nor were the architects any better, he told the students when he distributed the prizes at the Putney College for Civil Engineers; the proofs of their incompetence were displayed in "spectacle after spectacle of the ruins of fallen bridges, factories, and large buildings, in horrible deaths, and shocking mutilations occurring again and again from the like preventible causes".⁽³⁾ Altogether, "in no profession, perhaps, is there so large a proportion of bold, rapacious quackery as in the professions of civil engineering and architecture".⁽⁴⁾

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1. "Sanitary Report", p. 332.
2. E.C. - John Shuttleworth, 9 October 1844.
3. "The Builder", vol. CXXX, p. 362, 2 August 1845: "Mr. Chadwick on Want of Science in our Public Works".
4. "Papers read before the Statistical Society of Manchester on Labourers engaged in the Construction and Working of Railways". (pamphlet). 1846, p. 23.

But here and there Chadwick found a shining exception, a man of practical common sense and an inventive turn of mind, who had experimented with ideas of his own. Such a man, for example, was John Roe, "perhaps the only officer having the experience and qualifications of a civil engineer",⁽¹⁾ who since his appointment as surveyor in 1820 had succeeded in introducing a number of improvements in the face of the conservatism and obtuseness of his employers on the Holborn and Finsbury Commission. Roe had devised a system of flushing the sewers which had saved 50 per cent. on an expenditure of £1,200 a year; he had reduced the size of drains for short streets and courts from 4' 6" x 2' 6" to 15 inches in diameter; and, finding that the practice of joining sewers at angles (frequently even at right angles) caused eddies and the deposit of sediment, and obstructed the current of water, he had persuaded the Commissioners to require that curves should be formed in the sewers with a radius of not less than twenty feet. Chadwick was delighted, and set Roe to work on a series of experiments to ascertain the most economical size of pipe for drains and sewers and the best materials for their construction. Chadwick's "arterial-venous system" of town drainage, which he elaborated in the next two years, owed much to these suggestive experiments by John Roe.⁽²⁾ Despite the scepticism of engineers and Commissioners of Sewers, Chadwick could not see why --- if the inclinations of house drains were sharpened, if drains and sewers were formed of glazed earthenware instead of rough spongy brick, if the flow of water were made more regular and were concentrated in a smooth circular tube --- sewers of deposit should not cease to exist, and excreta be conveyed away from the household by the prompt and cleanly water closet.

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1. "Sanitary Report", p. 55. "That officer effected the only considerable improvements of a scientific character that have been made in the sewage of the metropolis", (ibid., p. 317).
2. E.C. - Editor of the "Builder", 25 April 1835; enclosing letter from Roe of 18 September 1829, in which Roe describes the experiments he conducted between 1843 and 1845 on tubular drains of glazed earthenware, as suggested by E.C.

The two main objections to the use of the water closet, apart from the cost of its installation, were that it must result in the pollution of the rivers, and that, at the same time and by the same process, it would permit valuable manure to run to waste. The key to the understanding of Chadwick's engineering schemes, which he sketched for the first time in the "Sanitary Report", is his effort to show that neither of these results was inevitable. The filth which caused disease and discomfort in the town was one of the richest materials of production in the country; its value was such that it would be worth while conducting it by iron pipes, pumping it by steam power if the levels were inconvenient, to the adjacent farm land. Town and country thus stood in a reciprocal relation. In the country the land was too often poor and thinly clad with vegetation, except rushes and plants favoured by a superabundance of moisture, the crops meagre, the population sparse and afflicted with rheumatism, ague, and other maladies arising from the prevalent damp. In the town the houses and streets were filthy, the air foetid, zymotic diseases rife; all springing from the shortage of water and the presence of the animal refuse which was needed by the starved land outside.⁽¹⁾ The solution was the "arterial-venous system", with the public sewers as the arteries pumping out the rich town guano, and the water pipes returning the excess moisture of the countryside to the place where it would do most good. Two millions might be added to the revenue by the simple expedient of removing the sources of ill-health from London's back-streets. If this income were vested in the public authorities, to whom, indeed, by law and custom it properly belonged, it would go far towards footing the bill for the other public services which were now so much neglected. The whole scheme was fascinating in its simplicity and economy.

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1. "Sanitary Report", p. 97. Chadwick gave as reasons for the neglect of sewage irrigation in the past --- the lack of science and skill; the divisions of interests and natural areas between different owners; and the want of powers by local authorities. (MS notes, various dates).

If he must turn engineer to rescue the towns from filth, Chadwick found also that he must be equally inventive in his administrative proposals. No authorities existed whose functions had for their conscious object the maintenance and improvement of the public health. The Lords in Council had been charged, under an Act of James I, to keep watch against the dangers of foreign pestilence, and an annual sum of £2,000 was voted for the National Vaccination Board. Beyond this the central government recognised no responsibility for the health of the subject. Every man had a Common Law right to "air for his health, light for his profit, prospect for his pleasure", and the legal remedies of indictment might be invoked to suppress any nuisance which endangered the health or personal safety or conveniences of the citizen.⁽¹⁾ "Annoyance juries", appointed by the Courts Leet, still perambulated some towns in search of public nuisances, an inquest of reluctant and ignorant tradesmen which retained its value only in the antiquarian affections of a Toulmin Smith.⁽²⁾ The public continued to suffer because no funds existed for prosecution by indictment, while the most offensive of the nuisances were supported by large capital. In every district individuals had usurped despotic powers which stood in the way of public health, and which they held with impunity in face of the expense, delays, and uncertainty of the legal procedure.⁽³⁾

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1. e.g. the corruption of water, the stopping of wholesome air and light, or the division of a message by which it was rendered more dangerous at a time of epidemic.
2. Cf. the description of the activities of a typical jury, "Sanitary Report", p. 309. The superintendent of nuisances at Manchester told the Health of Towns Commission ("Second Report", vol. 1, p. 76), "that it has hitherto been found difficult to support the indictment, in consequence of the inhabitants who have complained not attending to give evidence; and that at the court leet, held in October, 1940, fourteen cases of public nuisances were dismissed from want of evidence".
3. At Birmingham, for example, the river Rea, which acted as the town sewer, was sluggish and offensive because the water was diverted by a manufacturer to turn his mill ("Sanitary Report", p. 305).

Apart from the ancient and ineffectual remedies provided by the Common Law, the state of the public health was the unlooked for by-product of the activities of bodies with quite other aims in view; of Town Councils, for example, not yet quickened by a civic conscience and concerned mainly with the preservation of the archaic dignities and privileges of their members; of Commissions of Sewers, whose traditional function was defence against floods and surface waters, and whose works were ill-designed for the additional burden thrown upon them by the introduction of the water closet; of paving trusts, more concerned to ensure a smooth flow of traffic than the cleanliness of the streets. Most of the early Local Acts, though providing for paving, lighting, cleansing, and watching, contained no powers for the drainage of streets or houses, being framed not for sanitary purposes but for the defence of life and property and the improvement of communications. More recent Acts, containing drainage provisions, did not extend to courts which were not thoroughfares, these being looked upon as private property and so not entitled to benefit. Though Local Acts contained a multitude of clauses directed against nuisances and obstructions, these were often of little effect, since the most influential members of the Corporation or the Improvement Commission might well be the company directors whose gas works contaminated the streams or whose chimney smoke darkened the atmosphere.

In the new suburbs of the growing towns, lying outside the jurisdiction of the Town Council or the Improvement Commissioners, frequently the only powers for drainage were afforded by the Highway Act.⁽¹⁾ These powers were permissive;

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1. 5 & 6 Will. IV c. 50. By sec. 18 the Vestry, in places containing 5,000 inhabitants, was empowered to elect from 5 to 20 householders annually, to serve as a board of surveyors for the repair of the highway. Sec. 67 permitted the surveyors to make and cleanse ditches, gutters, drains, and water courses, and to carry them into and through adjoining lands on payment of compensation to the owner.

they were clearly intended only to provide means for carrying off surface water which might obstruct the highway; and their enforcement depended upon the energy and public spirit of a body of unwilling householders, annually elected to form a Highway Board, and commanding the services of a single paid surveyor. Yet in many large towns the drains so formed were often the only available channels for conveying refuse from the household.⁽¹⁾

In the metropolis the natural drainage area was capriciously sub-divided between the ancient Commissions of Sewers, each of which sat within its frontiers, jealously guarding its jurisdiction against the encroachments of the rest, and stubbornly resisting all attempts to saddle it with the sanitary burdens of a new age.⁽²⁾ When the Holborn and Finsbury sewers were widened and enlarged, the sewers of the City, which lay on a lower level and with which they communicated, became insufficient to carry away their contents, with the result that a number of houses in the vicinity of the river were inundated by sewer water after each fall of rain. Blind to the absurdity of draining a natural area by unconnected and partial schemes,

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1. Sec. 115 of the Turnpike Act (3 Geo. IV c. 126) also contemplated the use of road drains for the drainage of the adjacent houses, its operation being limited, however, to those parts which were under the superintendence of the turnpike trustees --- usually the principal streets only.
2. By the Statute of Sewers (23 Hen. VIII c. 5, modified by 3 & 4 Will. IV c. 22), Commissions were to be directed as need arose to "such substantial and indifferent persons" as might be named by the Lord Chancellor, Lord Treasurer, and two Chief Justices, empowering them to sit as a Court of Record, to levy rates, and to execute works for the removal of annoyances and the safeguarding and conservation of the sewers. That the drainage of surface waters was their primary function is shown by sec. 2, which recites "the great damages and losses which have happened by the influx of waters upon marsh ~~lands~~ grounds and other low places, heretofore through politic wisdom won and made profitable as also by occasion of land waters, and other outrageous springs, in and upon meadows, pastures, and other low grounds adjoining to rivers, floods, and other watercourses"

the City Surveyor complained in an aggrieved tone that the waters of the "county" ran into the City jurisdiction, obliging the Common Council to enlarge their own sewers. The drainage of houses was not a function that the Commissions regarded as falling within the scope of their normal service. Any one who applied to have a drain laid down from his house to the sewer was charged a guinea; this fee, which was quite illegal, was defended by one surveyor on the ground that "if they were not to resort to that measure, the sewers would be destroyed. Every one would make a hole in the sewer".⁽¹⁾ When the medical observers of the Poor Law Commission were conducting their investigation in 1838, the clerk to the Tower Hamlets division told Dr. Arnott that he had heard few reports of fever in his district --- yet Baker's-Arms Alley, a notorious fever nest, was distant only the length of a short street from his office.⁽²⁾

While drainage, which offered no prospect of profit, was thus left as an inefficient public service in the fumbling hands of local authorities, water had become an article of trade, and in all but three or four towns was distributed by commercial companies. These had defects of their own. They directed their supplies exclusively to those houses which could pay water rates, and took no account of the important public objects of cleansing streets, flushing sewers, and fighting fires. So long as a majority of the ratepayers rested content with bad water, and dividends were not endangered by public clamour, declared Chadwick, no improvements which involved the companies in expenditure could be expected. Competition, the economists' panacea for cheap and efficient service, had given no defence to the inhabitants of the capital. The London water companies, with whom Chadwick was presently to be at open war, had soon perceived that it would be more to their profit if instead of cutting each other's throats they got together in a gentleman's

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1. "Sanitary Report", p. 311. For further instances of the attitude of the Sewers Commissions, see below, p. 168 66.
2. *ibid.*, p. 313.

agreement to cut the throats of their customers. There had been first a period of wild competition, when two or three sets of pipes were driven through the wealthier districts, and gangs of rival pipelayers fought in the streets. Then followed a reflective interval while the companies licked their wounds. And finally came a compact between the nine companies to partition London, and subject Londoners to a nine-headed monopoly.

One primary public service, water supply, therefore, had been abandoned to irresponsible and arbitrary private companies, who confined their functions within the estimated range of easy profit; two more, drainage and paving, were imperfectly executed by torpid, amateur authorities, who, in the acid words of Chadwick's famous indictment, "sit still amidst the pollution, with the resignation of Turkish fatalists, under the supposed destiny of the prevalent ignorance, sloth, and filth".⁽¹⁾ In all three services, a new direction, a new spirit, and a new organisation were urgently required. As a fundamental principle Chadwick laid it down that "it is only when the public health is made a matter of public care by a responsible public agency that what is understood can be expected to be generally and effectively applied for the public protection".⁽²⁾ The detailed recommendations which followed from that principle took him another two years to elaborate, but we may note briefly here the main points of the preliminary sketch given in the "Sanitary Report". All structural arrangements, for under drainage and surface drainage, for road construction and road repair, must for the sake of efficiency and economy be brought together into a single public service. These duties should devolve upon the existing machinery of Commissions of Sewers, extended from the metropolis to all parts of the country, and re-designed to bring it into line with recent developments. It was true, Chadwick admitted, that there was much legitimate dissatisfaction with

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1. "Sanitary Report", p. 44.

2. *ibid.*, p. 105.

their present proceedings; but elective vestries were no better, and entirely open vestries were even worse. There might be some infusion of the representative principle by including as ex officio members the Chairman and Vice-chairman of the Board of Guardians, which would have the additional advantage of ensuring close liaison with the body charged with the administration of relief to those who were rendered destitute as a result of preventible diseases.

Similarly the supply of water should be entrusted to the "most eligible local administrative body".⁽¹⁾ Chadwick had been greatly impressed by that most successful of early essays in the direction of collective regulation and enterprise, the municipal gasworks of Manchester, established under a Local Act in 1817, and managed by an elected committee of ratepayers.⁽²⁾ They supplied gas as good in quality, and cheaper, than that supplied by companies in neighbouring towns, he pointed out; they had shown themselves more ready to adopt improvements; and their profits, to the amount of £10,000 a year, formed a public fund for the improvement of the town, for such public projects as widening the streets and building a Town Hall. Another notable example of public enterprise came from Bath, where the Corporation supplied more than three-quarters of the town, in competition with four small private companies; their water rents amounted to £3,233 2s., their expenses to no more than £449 3s. 3d., leaving a profit of £2,783 13s. 9d., which went to the reduction of the borough rate. "The advantages of this system over private companies appear to me great and incontestable", the chaplain of the Bath Union assured Chadwick, "Here are no expenses for solicitors, or litigation between rival companies, no exorbitant salaries to the variety of officers which every separate establishment demands, no collusion between coalescing companies to raise the charges to

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1. "Sanitary Report", p. 80.

2. For the history of the Manchester gas works, see S. and B. Webb, "Statutory Authorities", pp. 262 - 273.

the utmost amount that the inhabitants will bear".⁽¹⁾ As for the customary objection of the economists that public officials were less efficient than those in private employment, Chadwick saw in it an echo of the old argument he had confronted before, that "government does everything badly", and he dismissed it with the reply that "ordinary service may be obtained for the public, if recourse be had to the ordinary motives by which such service is engaged in private companies".⁽²⁾ Chadwick had not yet worked out in full his theory of public utilities, but in the "Sanitary Report" he made his first authoritative pronouncement in support of the movement which, before another hundred years were out, was to place in the hands of public authorities four-fifths of the water supply, two-fifths of the gas, four-fifths of the tramways, and two-thirds of the electricity undertakings.

It had been frequently suggested (most recently by the Report of Slaney's Select Committee ⁽³⁾) that a Board of Health should be elected in each locality to supervise the sanitary arrangements. Assuming that such a Board were elected, observed Chadwick, its activity would in any case be dependent upon the services of a full time medical officer, charged with the duty of hunting out the physical causes of disease in the houses of the poor. The public medical service, as it existed, was fragmentitious and incomplete, with medical officers appointed as inspectors of prisons, asylum visitors, Union surgeons, examiners of recruits, conductors of post mortems --- part time appointments which brought in only such sums as £40 or £50 a year. There was a strong case for putting a wide district under a superior medical man, with the duty of inspecting schools, places of work, and lodging houses, besides visiting the fever nests pointed out for his attention by the returns of the superintendent registrar. A "single securely-

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1. Rev. Whitwell Elvin - E.C., 11 January 1842.
2. "Sanitary Report", p. 77.
3. See above, p. 80.

qualified and well-appointed responsible officer" of this type would be far more effective than a Board of Health.⁽¹⁾

Chadwick thus revealed that in local sanitary administration his ideal was a compact Commission, appointed by the Government, executing or supervising public works through a competent full-time engineer, and working in co-operation with a qualified medical officer of health. As he had tried to ensure that the relief of the poor should be in the hands, not of elected Guardians, but of a paid permanent official, so he now insisted that the public health was not a matter to be left to local representative bodies. Nearly ten years of day to day contact with the corruption and petty intrigue of vestry politicians had taught Chadwick a profound and bitter contempt for the workings of representative government. From the Poor Law Report down to the latest product of his inquisitive spirit he had been displaying in countless instances the ineptitude, the stupidity, and the greed of the men who were thrown up promiscuously by the process of election. Under this system the public service had come to be regarded principally as the means of rewarding the elector who "voted straight". A tailor would sell his vote for a legal clerkship, or the voice of an "illiterate tinman, a leading speaker at parish meetings", would be bought for a surveyorship worth £150.⁽²⁾ In the open vestries, he once told Lord John Russell, "the chief recommendation to an appointment are that the Candidate has lived all his life on the Parish, has failed in Trade, and has a Wife and ten Children dependent upon him for support".⁽³⁾ This distrust of elective bodies extended to the House of Commons, for the heads of the political executive were the local party managers writ large, and they thought in political not administrative terms, seeking rather a satisfied supporter in the constituency than an efficient officer in the department of State.

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1. "Sanitary Report", p. 356.
2. *ibid.*, p. 332.
3. E.C. - Lord John Russell, 3 July 1836.

Besides the corruption bred by the elective process, representative government led to a further mischievous error --- the belief that the public business could best be conducted by unpaid amateurs, elected to serve their turn as civic officers, as Highway Surveyors, Paving Trustees, Sewers Commissioners, or Town Councillors. This implied, first, that the public business offered no problems which could not be solved by any gentleman who gave to it a fraction of the attention he gave to his own affairs; secondly, that any gentleman who served in such a capacity would look for no reward other than the respect of his fellow citizens and the approval of his own conscience. Both these assumptions were vigorously denied by Chadwick. "The legislature, in making demands for such honorary services", he wrote, "has usually proceeded on the theory which views all those who may be called upon to render them, as persons qualified to understand the whole subject intuitively, and having no other interests or views than to perform the services zealously for the common weal; whereas, in the locality they are viewed in a totally different light, not as public officers, but in their private capacities, as owners or tradesmen, competitors for advantages of various kinds. However unjust this impression may frequently be, it is the impression that commonly prevails; and since all of one class cannot have a share in the administration of such funds, others of the same class, whether owners or tradesmen, view the persons exercising the power as rivals, and distrust their administration accordingly. As an owner, one member of a local Board is strongly indisposed to any line of operations that will apparently improve the property of another; and as an owner, too, he is under the strongest jealousy if he proposes or does anything which may appear to benefit his own property at the public expense".⁽¹⁾ Throughout his career Chadwick was combating

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1. "Sanitary Report", p. 323. On hearing that Dickens was preparing to publish his notes on his American tour, Chadwick commented "... I hope he who has so well exposed (Continued on next page).

this legacy from a leisurely, aristocratic tradition, the belief "that unpaid dilettanti service is cheap service"⁽¹⁾, and opposing to it the principle of administration by salaried experts; for these, being paid, could be held accountable, they possessed special aptitudes for the work, and they stood above local conflicts, viewing the local scene from the impartial aspect of the wider community.

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(Continued from previous page) parochial administration will do something better than that inaccurate observer and rash generaliser de Tocqueville and not countenance the mischievous falsehood of mob flatterers that special qualifications and knowledge for administration is unnecessary: that the capacity for it is intuitive" (E.C. - ?, 7 September 1842).

Cf. "Notes on paid and unpaid local administration in the poor law service", MS, n.d. (after 1854): "The services of a gentleman of education, or of practical experience when he gives his continued attention to the subject are beyond any price and it is the highest pleasure of a permanent public officer to serve under the most intelligent direction. But their services are too frequently transient: the Guardians can only attend occasionally: he cannot usually see in their dwellings the condition of the people relieved or know their histories: and it has been the strongly expressed opinion of the public servant whose views have been the most extensively adopted in the legislation for local administrative organisation, that its future improvement must be dependent mainly on the paid officers: on their practical facts and suggestions, the value of which in general will be in proportion to the constancy of attention and the opportunities of observation. They will be the more valuable and deserving of public support from their freedom from bias from their freedom from connexions injurious to impartiality as of employers in respect to their own labourers, owners of houses in respect to their own tenants, tradesmen in respect to their own customers..."

1. E.C. - ? Lord Morpeth, n.d., c. May 1843.

CHAPTER 4.INTERMENTS REPORT, 1843.

More copies of the "Sanitary Report" were sold by the Stationery Office than of any previous Government publication, (1) to the great satisfaction of the reformers who believed that "its good effect would be (as much almost as by legislation) created by its private influence on society". (2) John Mill, to whom Chadwick had sent the Report in proof, could not find "a single erroneous or questionable position in it, while there is the strength and largeness of practical views which are characteristic of all you do"; the style and arrangement appalled him, however, and he wished that Chadwick would learn "some of the forms of scientific exposition of which my friend Comte makes such superfluous use". (3) The Home Secretary, Sir James Graham, declined to present the Report to Her Majesty, (4) but his vigilance was circumvented by Sir James Clark, the Queen's physician, who gave a copy to Baron Stockmar, "purposely to get him to read the part on Windsor" (5) (one investigator had described the Royal Borough as incomparably the worst of all the towns he had visited). To many the astounding details came with all the force of a revelation. The medical superintendent of Arkwright's mill at Cromford, for example, despite his opportunities for observation, confessed that he had not previously been aware of the great mortality of the poor as compared with those in more easy circumstances. (6) But others

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1. E.C. - Macvey Napier, 11 October 1842 (Macvey Napier Papers, f. 175).
2. J. H. Burton - E.C., 29 September 1842.
3. J.S. Mill - E.C., April 1842.
4. E.C. - Col. Phipps (Prince Albert's secretary), n.d.
5. Sir James Clark - E.C., 21 August 1842. Manners Sutton told Chadwick (5 August 1842) "that Sir James Graham does not find that it has been usual to present Reports of this Nature to Her Majesty".
6. T. Poyson - E.C., 29 March 1843.

were less impressed, and where they were not openly incredulous greeted the Report with the defensive reactions of disgust or derision. E.C. Tufnell, one of the Assistant Poor Law Commissioners, wrote lightly "your Report reads like one of Ainsworth's novels, and will I think furnish some good hints for deepening the horrors of his next Jack Sheppard production".⁽¹⁾ In Paris a squeamish editor suppressed a review of the Report for the "Siècle" because of its dirty subject.⁽²⁾ Many others shrugged their shoulders when it was mentioned to them, Chadwick recalled later, as much to say "it is all very fine but you see the people like dirt and prefer dirt, and you cannot force them to spend money against their will".⁽³⁾ The hard-headed Dr. Mitchell, asked for his views on one of Chadwick's memoranda, wrote "you have sent me a sheet of matter which to me appears so impracticable so unlike real business that I hardly know how to deal with it. The scheme looks as if made for the whole island but it will hardly suit any one part". He went on to crush detail by detail the absurdity of trying to equip every poor man's cottage with a water closet. Chadwick's estimate of the cost was not nearly high enough. Where was the room for it? If there were room, the people would put it out of order in a very few days. What was to uphold it? Where was the tank to be placed? As for saying that the landlord who put in water closets would thereby attract better tenants --- anything like good tenants amongst the working classes were very scarce, and any landlord who thus attracted them would do so only by taking them away from another landlord; so that a scheme which depended upon having good tenants would not be a scheme on a large scale, and on whatever scale it would be a losing concern. Mitchell concluded by imploring his friend not to let himself down by writing so about bricks and mortar, about which he was clearly so ignorant.⁽⁴⁾

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1. E.C. Tufnell - E.C., 27 April 1842.
2. W.E. Hickson - E.C., 20 January 1843.
3. E.C. - Sir Henry de la Beche, 25 December 1843.
4. Dr. James Mitchell - E.C., 28 February 1842.

Despite Mitchell's honest doubts (which nearly cost him his long-standing friendship with Chadwick), the practical value of the Report was instantly recognised by many engineers. At the Putney College Butler Williams began to use it at once as a text book for his classes in civil engineering; and his students, following up Chadwick's suggestions, carried out experimental surveys of Putney and Wandsworth, and prepared the first contour map of the City of London.⁽¹⁾ When William Lindley was engaged to re-build Hamburg after the disastrous fire of 1842, he proposed to design the city's sewerage on Chadwick's principles of flushing and water carriage. The City Engineer and Architect promptly reported against his plan, basing their objections on passages from the "Sanitary Report", which they were convinced had been written to indict the evil effects of all sewers upon the health of the population. Not until Chadwick had sent Lindley written confirmation of his views would the Hamburg Senate allow him to proceed with his scheme.⁽²⁾

In political circles some, like Lord Howick, were now learning with "astonishment and dismay" of the state of the towns, and were beginning to ask themselves whether "we have trusted too much in a case where it does not apply, to the maxim that men should be left to take care of their own interests", whether it would not have been better if "even at the price of some sacrifice of productive power and of national wealth, the state had earlier interfered, and had taken measures which should have opposed some check to so vast an increase of

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1. "First Report of Health of Towns Commission", 1844, vol. 2, pp. 447, 454. London "was never surveyed, never had any system of levels, or contours laid down until it was done by the pupils of the college". (E.C. - Butler Williams, n.d.)
2. William Lindley - E.C., 18 April 1843, 13 June 1843. "Your Report has been to me most valuable and the people of Hamburg will feel the benefit of it in many of their structural arrangements. Many of the Citizens speak of it, as that "excellent Report" and I have been obliged to send copies to Bremen and to Berlin". (William Lindley - E.C., 25 October 1842).

population, without some corresponding increase in the machinery for maintaining order and decency, and diffusing the blessings of education and religion".⁽¹⁾ Lord Normanby was already a convert; he had thought the account in the "Fever Report" of 1838 exaggerated, till Southwood Smith conducted him on a tour of Bethnal Green and Whitechapel.⁽²⁾ Ashley also, with the Doctor as guide, had been to see and smell for himself the houses in Cowyard, Blue Anchor, and Baker's Court.⁽³⁾ But the Government, in the person of Sir James Graham, maintained a wary reserve. Too many interests must be disturbed, too many tenacious preconceptions must be abandoned, too many innovations in the scope and structure of administration must be accepted, for any hasty decision to be made by a Home Secretary in 1842, whether he were a Whig or a Tory. The Health of Towns Commission, described in the next chapter, gave the Government the breathing space and the strengthened arguments that they required. Thus, a few individuals, like Ashley and Normanby, were already convinced that the State must stretch out its power to avert the yearly doom of disease and death in the towns; many more, like Howick, were uneasily aware that past indifference and inactivity had produced a problem whose solution could not much longer be postponed, and these awaited only a positive plan and a strong lead; but by a vast inertia the ideas of most legislators continued to move in the deep grooves cut by habit, and comfortable thinking, and that unquestioning acceptance of the questionable that men call faith. The time for legislation was not yet.

Ignorance and interest found a colour of theory for their opposition in the teachings of that complacent school of philosophers who claimed to see in the operations of misery and disease the workings of beneficent economic laws. "That error of Mr. Malthus stands as a wall against measures of sanitary

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1. Quoted by J.L. and B. Hammond, "Lord Shaftesbury", pp. 98-9.
2. C.L. Lewes, "Dr. Southwood Smith", pp. 69 - 70.
3. *ibid.*, and Ed. Rodder, "Life and Work of the Seventh Earl of Shaftesbury", vol. 1, p. 361.

improvement", cried Chadwick in exasperation.⁽¹⁾ It met him at the outset of his public health campaign as it had met him ten years earlier when he began his Poor Law investigations, that fatalistic view that the pressure of population must in the nature of things lead to a large amount of unavoidable distress, that "undefined optimism"⁽²⁾ which found ground for inaction in the belief that the ravages of disease formed a natural or positive check, a "terrible corrective"⁽³⁾, to man's tendency to multiply beyond the means of subsistence. Wars and plagues, thought MacCulloch, tended to place an old country in the situation of a colony; they lessened the number of inhabitants without in most cases lessening the capital which existed for their maintenance. This assertion Chadwick strenuously denied, in his Reports and in discussions at the Political Economy Club. Such figures as he had been able to collect, from America and Europe as well as Great Britain, showed that districts where mortality was greatest had also the highest birth rate, and that the losses due to pestilence were more than made up by new births. "In one of the illdrained and ill cleansed and over crowded courts where there was a heavy mortality I once observed, to one of the women living there: "Why the undertaker is never absent from this place". "No, nor the midwife either," was the reply and it was then crowded with young and puny children".⁽⁴⁾ Nor could it be maintained that the "corrective fates" left the capital of a country unchanged, since they swept away many workers at the height of their productive powers, diminishing the proportion of adult workers and increasing the proportion of dependent children and widows.

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1. W.C. - J. Hill Burton, 31 July 1844.
2. "Sanitary Report", p. 176.
3. *ibid.*
4. MS notes, n.d. Nearly half a century later Chadwick claimed that he had told Malthus at the Political Economy Club, just before his death in 1834, "the fact of the quick reproduction of human life in the high rated districts of death. He was quite astonished that this point had escaped his observation". ("National Health", ed. B.W. Richardson, (1890), p. 313).

"The loss of capital from the pestilence might be explained to a farmer by asking him, "what would be the effect of the "corrective" on the four footed population of his farm: if of the colts born he could only rear one half, and if the working period of those reared were reduced by pestilence from an average of ten years to an average of five years".⁽¹⁾

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1. "Heads of Answer to J. MacCulloch's positions as to pestilence being corrective of population" (MS notes of a paper read to the Political Economy Club in June 1845). Cf. also the detailed discussion in "Sanitary Report", pp. 182 - 3, 193 - 5, 204 - 5. The MS notes are fragmentary, but the direction of the argument may be gathered from the following extracts:

"The proof that pestilence does not ordinarily diminish the numbers of the population is conveyed in masses of statistical evidence proving that wherever the proportion of mortality is the greatest, so also is there the greatest proportion of births We notice as examples two at the opposite end of the scale of health. In the county of Hereford in the year 1840: the proportions of deaths were 1 to 64: in the county of Lancaster they were that year 1 to 32: in Herefordshire the proportions of births were 1 to 45: in Lancashire they were 1 to 26: in Herefordshire the increase of the population between 1831 and 1841 had been only 2 per cent. whilst in Lancashire with its double mortality it had been 24 per cent. though a proportion of this increase is doubtless ascribable to emigration".

"To follow Mr. MacCulloch's illustration: the number of the colony will not be reduced: the proportions of widows and children and helpless hands will be increased by the work of his corrective fates. The capital of the community is lessened by the maintenance of upwards of 100,000 orphans, whose orphanage was created by premature, and as is shewn preventible deaths occurring to the fathers below 45 years of age: and by upwards of 30,000 destitute widows whose husbands died thirteen years at the least before the natural period and left them dependent on the poor rates"

"The small pox", says Mr. Malthus, "is certainly one of the channels and a very broad and deep one which nature has opened for the last thousand years to keep down the population to the level of subsistence: but had this been closed others would have become wider, or new ones would have been formed". There are large assumptions in such passages: as of what are the intentions of providence: and that population is kept down at one level: physicians see ague disappear but they see rheumatism prevail: and for aught they know extend: and in the absence of any proof to the contrary they assume that the proportions of death are

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Let it be granted then, said Chadwick, that the ratios of Malthus' hypothesis were as well founded as the theory of gravitation; one could admit the tendency of all stones to fall to the centre of the earth, and yet deny that in actual experience any stones actually did so fall.⁽¹⁾ The truth was that the belief was quite fallacious that the economic condition of the labouring classes was depressed. In that Malthusian stronghold, the Political Economy Club, he was amazed to find the impression that the wages of cotton workers were continually decreasing under the inexorable competition of excessive numbers. Another unfounded deduction of the "hypothesisists"! Actually, he pointed out, an analysis of the purchasing power of the wages now paid as compared with those of an earlier generation proved exactly the contrary. "The same yarn which cost my father 12d. per lb. to make in 1792, all by machinery, now costs only 2d. per lb.", a Lancashire manufacturer told Chadwick in 1841, "paying then only 4/4d. per head wages weekly, now 8/3d. or more; yet those wages amounted then to 5½d. per lb., and notwithstanding the higher wages, now to only 1d. per lb." And, he continued, the price of provisions was as high in 1792, and of clothing was 30 or 40 per cent. higher.⁽²⁾ In Stockport, Chadwick told Peel and Graham in December 1843, wages had recently averaged 11/- per head for man, woman and child, twice the amount paid in the agricultural districts. Such wages for cotton operatives were "beyond their capacity of frugal application".⁽³⁾ The turbulent Welsh miners were also "an example of an uneducated population whose wages had advanced beyond their habits or means of employing them in the best

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1. "Heads of Answer to J. MacCulloch's positions"
2. "Sanitary Report", p. 133.
3. "Memorandum on present condition of Manufacturing Districts", sent to Peel and Graham in December 1843. Only a fragment, pp. 12 to 25, of this interesting MS is to be found amongst Chadwick's papers.

(Continued from previous page) not diminished. The mortuary registers now consulted yield a different account: they shew that the proportions of deaths are diminished"

manner for their own advantage, who had no foresight, no self control, and no capacity to make reservations in times of prosperity for seasons of depression. They were in that state in which high wages were equivalent to excess of drink or excess of some sort".⁽¹⁾ And the excess was too often divided between the publican, the Dissenting Minister, and the Trades Union agitator. Whenever he heard it objected that the working classes could not afford to pay for improved housing and drainage, Chadwick would point to the amount of their "self-imposed taxation" as reflected in the excise returns. On liquor, beer, tobacco, and snuff, they spent £45 or £50 millions annually, more than the whole expenditure of the Government on the administration of justice, the civil service, and the army and navy. The town of Bury alone, with a population of 25,000, spent £54,190 each year on beer and spirits, £2 3s. 4d. a head, enough to pay the rent and taxes for 6,770 new cottages at £8 per annum each.⁽²⁾

Fever was born of distress --- so ran the easy generalisation of the politicians and economists, the corollary being that prosperity was the one cure for epidemics.⁽³⁾ The

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1. E.C. - Sir James Graham, 11 July 1843.
2. "Sanitary Report", p. 227. Also "Draft Memoranda on the exposition of the Budget", MS fragment, n.d.
3. When Cobden made a statement in the Commons attributing the excessive mortality to unemployment, Chadwick commented: "Employment has increased very much of late in the Metropolis but it has not checked mortality. If Cobden runs his head against the universal facts he will get it broken". (E.C. - Hon. C.P. Villiers, 6 February 1845). "The reports state that fever everywhere diminished during the distress", he noted in 1845. "In Paisley it was stated to be not one quarter of what it had been during periods of regular work: the mortality certainly diminished in England in the manufacturing distress and has increased conspicuously since the return of work". The doctors would probably ascribe this "partly to the fact of the operatives having been, during the stoppage of their work, more in the open air than in their own close unventilated and filthy rooms, and partly to the circumstance of the unusually long continuance of fine dry weather". (E.C. - Dr. W. . . Alison, 7 December 1843).

records of the fever hospitals, Chadwick replied, showed that the pestilential miasma which caused disease was governed more by the weather than by the state of the market. "It has been rife in periods of prosperity, it is there in times when work is full, it is here also when bread is cheap as well as dear, and the plenty is often poisoned by it".⁽¹⁾ Liverpool and Manchester, the two most thriving cities in the country, were also the most unhealthy. It was true, of course, that the districts where the greatest mortality occurred were probably the poorest, but not invariably so. It was the physical circumstances of place which determined the mortality rate, and in the American cities, New York and Philadelphia for example, the mortality was greater even than in Dublin. This fact crushed "the notion propagated here, that disease was evidence of pecuniary distress and that high wages and self government and democratical or American institutions are the best remedies for all social or at least sanitary evils".⁽²⁾

The population theory of Malthus was Chadwick's favourite example of the unverified assumptions on which economists based their recommendations and statesmen built their policies. He was on firm ground when he asserted that the rise in average real incomes, and the concurrent increase in both population and wealth, showed that the limits of subsistence had not in fact been reached. He was right to urge against Malthus that, as Carr-Saunders puts it, God never sends mouths without sending hands,⁽³⁾ that in the Britain of his day the Nemesis of decreasing returns was held at bay by improvements in agriculture and in the technique of production, that "the labourer goes into the market as a producer, rather than as a competitor".⁽⁴⁾ He was right to insist, in the face of that loose complacency which, from a dread of over-population,

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1. E.C., MS fragment, n.d.
2. E.C. - Lord Francis Egerton, 1 October 1845.
3. See the discussion of population theories by Carr-Saunders in "History of Civilisation", ed. Eyre, vol. 5, pp. 362-75.
4. E.C. - Archibald Allison, 5 August 1840: see foot-note, p. 31.

saw good in a heavy death rate, that "every labourer who, over and above his subsistence, produces a surplus, or a return to make it profitable and worth while to employ him, is of pecuniary value, and his death a loss, economically considered, as much as the destruction of a machine, with its purchase and maintenance, and that the more there are of such labourers, the better for the community, merely economically considered, just as a community is all the better the more it has of productive machines in actual employment".⁽¹⁾ Unfortunately, however, while deriding the smugness which characterised many of Malthus' followers, he adopted certain complacent doctrines of his own. He was led to argue that there was little in the circumstances of the lower classes that good drains and pure water and improved housing, combined with intelligent administrative arrangements, could not cure. Their diet was ample enough; a working woman, he maintained, to lose children and reproduce them again in such rapid succession, must be robust and well-nourished, and her physique could not be reduced and attenuated by starvation;⁽²⁾ and, in the comparative healthiness of the inmates of prisons, fed as they were on low-priced diets, he saw evidence that the population was suffering not from insufficient food but actually from injurious over-feeding. Their hours of work were not excessive; Chadwick, who drove himself hard for anything up to sixteen hours a day, probably never felt the full force of the argument for a ten hour day. As for their wages --- "such wages as those now (1843) paid at Stockport and Manchester viewed with relation to the interests of the working classes are deemed excessive by some of the best informed manufacturers. Paradoxical as it may appear, it may be asserted that the workmen in Manchester would get more by lower wages; an approximation to the country wages supposing prices to remain the same would yield to the capitalists profit and the means and inducements to carry on the works.

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1. "Report from the Select Committee on Railway Labourers", Q. 2208. P.P. 1846 (556), xii. 1.
2. E.C. - John Wilson, 5 January 1844.

uninterruptedly. On this topic I had occasion to observe to one manufacturer "It being as you describe that you are making no profits: and that wear and tear are going on without replacement, that is (a) course which can have but one end, as injurious to the workmen as to the manufacturer whose capital is destroyed. Considering yourself as the steward for the labouring population of the fund from which their means of subsistence must be obtained are you not acting an improvident part for them in allowing it to be eating up: and in not enforcing a reserve by a proper reduction of wages?" The reply has been "It must come to that at last". "Why should it be protracted; since every day it proceeds is in aggravation of future suffering to the workpeople?" "We hope and we do not like to break up our establishments"".(1) It is not surprising that between Malthus, who told them they could never be better off, and Chadwick, who told them they were better off than they thought, the working classes could see little to choose.

The "Sanitary Report" was presented on July 9th 1842, and nearly a year was to elapse before Chadwick embarked on the extended inquiry under the Health of Towns Commission. The intervening months were occupied by Chadwick in preparing a Supplementary Report on Interments in Towns, a subject omitted from the "Sanitary Report" as "too great in its extent, and too special in its nature".(2) A final chapter, and that the grimmest, remained to be added to Chadwick's sanitary survey, and without a break he plunged single-handed into what was to prove the most disagreeable and thankless of his investigations.

The overcrowding of the graveyards was only a special aspect of the central problem of civic police which the enormous

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1. "Memorandum on present condition of Manufacturing Districts," December 1843.
2. "Supplementary Report on Interment in Towns", 1843, p. 1. P.P. 1843 (509), xii. 395.

growth of the population had thrust into the unready hands of nineteenth century administrators. As the housing accommodation of the metropolis was insufficient for the number of the living, so the graveyard space was insufficient for the number of dead Londoners. In earlier times the churchyard had been the resting place of the pious among his forefathers and the refuge of the superstitious from vampires and ghouls. The channels of habit had been cut deep by the centuries; and even when the churchyard was hemmed in on all sides by a forest of brick, and ten parishioners required burial where one had been buried before, the custom maintained its hold of burying in the holy ground within the walls of "God's Acre". "In the metropolis, on spaces of ground which do not exceed 203 acres, closely surrounded by the abodes of the living, layer upon layer, each consisting of a population numerically equivalent to a large army of 20,000 adults, and nearly 30,000 youths and children, is every year imperfectly interred. Within the period of the existence of the present generation upwards of a million of dead must have been interred in those same spaces".

(1) In German cemeteries the number of interments per acre had been fixed by law at 110 each year. In the same area the London gravedigger had to find room for probably twice that number of bodies annually, and perhaps for ten, twenty, or even thirty times as many. (2) Faced by the physical problem of burying more corpses than could be accommodated by the ground at his disposal, he had perforce resorted to gross expedients. It had always been usual for the site of a grave in the common

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1. "Supplementary Report", p. 27.
2. Chadwick gives the average number of burials per acre as: Parochial Grounds 191; Protestant Dissenters 197; Roman Catholics 1,043; Jews 33; Swedish Chapel 108; Undescribed 294; Private Grounds 405. The average for all intramural grounds was 203. But these averages conceal the great differences between the various grounds. Thus, the highest number of burials per acre in any ground Chadwick estimates as: Parochial Grounds 3,073; Protestant Dissenters 1,210; Roman Catholics 1,613; Jews 52; Undescribed 1,109; Private Grounds 2,323. (1811., p. 133).

churchyard to be used again for the reception of subsequent generations, after a decent interval in which the memory of the departed as a person had faded from the thoughts of the survivors and his physical remains had decayed in the earth. But now the body was scarcely laid in the soil before it was rudely disturbed to admit another. Twenty or thirty fresh corpses might be crowded into a grave, the whole festering mass being lightly covered with earth which was stirred continually by dogs, children, and the sexton's spade; and when the close packed earth could hold no more, bodies were broken and hewn into pieces to fit them into a smaller space. In the common graveyards human remains were literally treated as ashes and dust, and bones lay scattered on the surface or were wheeled to a heap in the "bone-house". At the burial ground of the Tottenham Court Road chapel the gravedigger confessed that seven or eight adults and twenty or thirty children were deposited in each grave, the opening being only partially closed after each new interment. The churchyard of St. Olave and St. John in Tooley Street had a pit sixteen feet deep and twelve feet square in one corner for the reception of bones thrown up by the gravedigger's spade. Church vaults were never filled up, because the older coffins mysteriously disappeared, the bones being wheeled away in cart-loads as farm manure, while the lead was stripped from the coffins and sold by the sexton or gravedigger. (1)

For the sanitary reformers, believing that "animal matter

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1. Conditions in many provincial towns were no better, as the inquiries of the Inspectors of the Board of Health revealed. William Lee, summing up his impressions of the towns he had visited in 1849 and 1850, declared "Of these 59 burial grounds, there are only 5 in which any interment can take place with safety to the living; 30 others are full of bodies in all states of decomposition; 12 are crowded, heaps on heaps, with undecomposed bodies, and the remaining 12 are nothing less than horrible masses of putrid human remains". ("Report to the General Board of Health on Interments in Towns visited during 1849 and 1850", 1851).

in a state of decomposition is injurious to health"⁽¹⁾, the Grand Guignol horrors of the churchyards were deepened by a further fact --- that an epidemic might well be started by exposing a putrid body. In London there were upwards of two hundred graveyards, two hundred centres of pollution, each pouring off, day and night, the exhalations of decay, and the morbid matter, whose deadliness was shown if it got into the slightest cut, might be breathed into the lungs when it was diffused into the atmosphere. Plague and typhoid might thus be generated amongst the overcrowded town populations, just as "dissecting-room fever" had been known to strike down the students and attendants who handled the cadavers in the medical schools. It was on this deduction from the crude pythogenic theory that Dr. G.A. Walker, "Walker of the Graveyards", based the attack on the dangers of intramural interment which he launched in 1837.⁽²⁾ In the Commons the campaign was led by James Mackinnon, another of those parliamentary francs tireurs who from time to time ranged themselves at Chadwick's side, banging away enthusiastically at some well-loved target, the soap duties, quarantine, factory smoke, or the window tax --- and more often than not embarrassing him with their half-baked schemes and uncontrollable tendencies to fly off at a tangent. When, on March 8th 1842, Mackinnon moved for a Select Committee on the burial of the dead, he began with the words "Amongst the ancient Egyptians", and there was an immediate burst of laughter. The Home Secretary, Sir James Graham, admitted, however, that some legislative interference was "absolutely necessary", and consented to the appointment of a Committee.⁽³⁾ By August Mackinnon was ready with the draft of a Bill to

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1. Southwood Smith - E.C., 11 March 1843.
2. He told Mackinnon's Committee that he believed that the fever in the Clement's Lane district was chiefly due to the state of the "poor ground" there, which as long ago as 1814 the Westminster Improvement Commissioners had reported to Parliament could no longer be used for interment. (qs. 790 - 792, 821).
3. Hansard, vol. 61, pp. 281 - 3, 8 March 1842.

implement the findings of his Committee; and Graham, hesitating to move against the religious and customary prejudices and the strong sectional interests with which the subject was hedged, turned for fuller information to Chadwick.⁽¹⁾

Mackinnon had been concerned only to abate the dangers and indecencies of existing burial practices by ensuring that interment should take place at a distance from the boundaries of the town, the arrangements being controlled by a parochial "committee of health" under the general supervision of the diocesan or of a Central Board in London. Chadwick at once opened up the attack on a wider front. In a demonstration of remarkable power, he confronted the social conscience of the law-making classes, numbed as it was by indifference, ignorance, and the anodyne of interest, with a picture of the working class family, caught in a web of custom and economic circumstance which could be broken only by the benevolent strength of the central government. The grossness and muddle of the desecrated graveyards seems to have touched something deep in Chadwick. Perhaps in no other report of his is the criticism of unregulated private enterprise so fierce, and the argument so cogent that "habit combined with associations of profit often prevents or blunts the perceptions of the most offensive remains."⁽²⁾ We can see him, note-book in hand, probing his

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1. See "Report from the Select Committee appointed to consider the expediency of framing some legislative enactments to remedy the evils arising from the Interment of Bodies within the precincts of large towns and of places densely peopled", 1842 (327).X.349. Mackinnon introduced his Bill "for the Improvement of Health in Towns, by removing the Interment of the Dead from their Precincts" (1842 (533).II. 603) on 4 August 1842, its main provisions being:
 1. Burials should be removed, say, one mile from the boundaries of the town.
 2. Cemeteries formed within the previous ten years were to be exempt from the Act.
 3. Parochial committees, formed of the incumbent and churchwardens, were to be empowered to raise funds by a penny rate to purchase land, or to contract with a cemetery.
 4. The arrangements might be supervised by the diocesan, or preferably by a Central Board, which might also supervise drainage and ventilation. (Hansard, vol. 65, pp. 1030 - 33).
2. "Supplementary Report", p. 8.

witnesses with sharp questioning --- the gravediggers, prematurely aged, with their shrunken figures and cadaverous aspect, solemnly swearing to the healthiness of their occupation; the robust keeper of a dissecting theatre who had never suffered ill effects (though, to be sure, his assistants did the most dangerous and dirty work, and eight of them had died, some being dissected in the very theatre in which they were employed)⁽¹⁾; the employers, shrugging away the early deaths of their workmen, with "But they drink --- they are a drunken set"⁽²⁾; the cemetery owners adding to their profits by "working the earth close"; the secretaries of the burial clubs revealing the fantastic finances of their societies, the undertakers urging a "respectable funeral", the clergymen pocketing their fees and perquisites, "a silk scarf of three yards and a half, a silk hatband, and black kid gloves".⁽³⁾ We can feel his mounting impatience with their shifts and equivocations, and share something of the enthusiasm with which he invokes the power of government to tidy up the mess.

In a very large proportion of cases in London and the manufacturing districts, one room was the sole accommodation for the whole family. "In this one room they are born, and live, and sleep, and die amidst the other inmates".⁽⁴⁾ It was their bed-room, their kitchen, their wash-house, their sitting-room, their dining-room; and, if they did not go out to work, it was frequently their work-room or shop as well. The secretary of the Statistical Society, conducting an inquiry in the inner ward of St. George's, Hanover Square, discovered that out of 1465 families, 929 had a single room and 408 others had only two; of the same families 623 had a single bed, another 638 only two. Thus, about one family in eleven possessed a third room, and that usually not unoccupied, in which to place a corpse. Yet this district was a favourable specimen. In Marylebone, out of 608 families, 159 occupied part of a room,

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1. "Supplementary Report, p. 8.

2. *ibid.*, p. 9.

3. *ibid.*, p. 49.

4. *ibid.*, p. 31.

332 had one room, and 61 had two; only five families had three rooms, and only one had four.⁽¹⁾ Stretched out on two chairs or a board or shutter, the body must await burial, while the normal life of the family went on around it, the family eating, sleeping, working, the children playing, in close proximity to a corpse perhaps still covered with the visible marks of disease.⁽²⁾ It might remain there anything from five to twelve days, since for the working classes Sunday was the one day free on which they could bury their dead, and if a death took place in the middle of the week, the body was frequently kept until the Sunday week, while subscriptions were being collected. Corpses had been retained, according to one undertaker, even after the coffins had been tapped to let out the liquid products of decomposition, till maggots were seen crawling about the floor and over the trestles on which the tapped coffin was supported, till, as the body was borne away, escaping matter ran down the shoulders of the bearers.⁽³⁾ When the cause of death was an infectious disease, the results could be predicted. The louse, carrier of typhus, deserted its chilling host, and a victim of typhus had been known to be followed very shortly to the grave by five of his children and two or three visitors.⁽⁴⁾ "If the returns and the statements of witnesses acquainted with the crowded districts be correct, that four out of five families of the labouring classes have each but one room", Chadwick summed up the inescapable conclusion, "then every unit of upwards of 20,000 deaths per annum which occur in the metropolis,

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1. "Supplementary Report", pp. 31 - 2.
2. The medical officer of St. Martin-in-the-Fields stated that he had recently ordered the removal of a girl to the infirmary, after visiting her room. "I could not remain two minutes in it; the horrible stench arose from a corpse which had died of phthisis twelve days before, and the coffin stood across the foot of the bed, within eighteen inches of it. This was in a small room not above ten feet by twelve feet square, and a fire always in it, being (as in most cases of a like kind) the only one for sleeping, living, and cooking in". (ibid., p. 33).
3. ibid., p. 38.
4. ibid., p. 36.

every unit of 4,600 deaths of the labouring classes which occur annually at Liverpool, must be taken as representing a horrible scene of the retention of the corpse amidst the family in the manner described in the testimony of those who have witnessed it; --- and every unit of some 4,000 deaths from epidemics in the metropolis, and every third or fourth recorded death in other towns, and even in crowded villages, represents a distressing scene, and moreover a case of peculiar danger and probable permanent injury to the survivors amongst whom it takes place".⁽¹⁾

Why, asked Chadwick, picking up the next link in the sordid chain, why was burial so long delayed amongst the lower classes? The answer plumbed the depths of human habit and social custom. In a few cases --- one in thirty the secretary of a burial society estimated --- it was due to the widow's reluctance to part with her husband's remains. But in the majority of cases the reason was the high cost of dying, the lack of money to defray the expenses of interment. "The desire to secure respectful interment of themselves and their relatives is, perhaps, the strongest and most widely-diffused feeling amongst the labouring classes of the population. Subscriptions may be obtained from large classes of them for their burial when it can be obtained neither for their own relief in sickness, nor for the education of their children, nor for any other object".⁽²⁾ The greatest dread of the poor was a pauper burial, in a bare parish shell, borne by pauper bearers to the "bone-house", the customary receptacle for suicides and those unfortunates who were deserted and without relations, and even "God-forsaken".⁽³⁾ It was estimated that a fourth or a third of the £24,000,000 in the savings banks was earmarked for burial expenses, and even workhouse inmates were not infrequently found at their deaths to have concealed a hoard to pay for their own decent interment. The enforcement

1. "Supplementary Report", p. 43.

3. *ibid.*, p. 94.

2. *ibid.*, p. 55.

of undertakers' bills formed a large part of the business of small-debt courts; and one undertaker told Chadwick that if they did not give time for payment to two-thirds of their customers, the poor would not be able to bury their dead at all.⁽¹⁾

This "pride" of the working classes, rooted in long custom and in the courage of self-respect struggling in adversity, made them the easy victims of the burial club and the undertaker. In Westminster, Marylebone, Finsbury, Tower Hamlets, and the City, there were about two hundred burial societies, organised usually by one of the small, grubbing undertakers and the publican of the tavern where the meetings were held. Membership ranged from 100 to 300 and deposits from £90 to £1,000; contributors usually paid 1½d. or 2d., and relatives received a benefit of from £5 to £10.⁽²⁾ Invariably one provision in the rules was that the box should not be removed to any other public house, and the publican counted on receiving the sixpence spending money allowed to each Committee man, besides the patronage of the undertaker's mates, who were

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1. Cf. the complaint of Robert Carr, carpenter and undertaker, to the Select Committee of 1842 (Q.679): "In many instances persons say, 'We cannot bury under a week'; that is from custom. Others have not the means of getting a black gown, and they cannot follow in a coloured one; that is their bit of pride; then it is put off, it may be, two or three days on that account. They will not have their relatives buried by the parish; they would rather do anything than that, saying they wish them to be buried respectably; and then the end of it is, that myself, and other people like me, often bury for nothing, not intending to do it. They cheat us; and if they would do away with their little pride, and let the parish do it, the bodies would be removed in a reasonable time, and such men as myself would not be imposed on as we frequently are".
2. "Supplementary Report", p. 57. The East London Burial Society, for example, met at the Swan in Bethnal Green; its president and founder was Richard Crafer, undertaker. Preston had six clubs with a membership of 30,000, the chief of them, with 15,164 members, paying out £1,000 a year raised by weekly contributions of ½d., 1d., 1½d. and 2d. Walsall had 90 friendly societies with 5,000 members, who spent a total of £1,239 3s. 4d. a year on drink and feasting. (pp. 57, 60).

notoriously heavy drinkers. Thus, the undertaker president had the funeral orders, while the publican treasurer had the members' custom, and in addition the handling of the money, which he usually banked with the brewer at four or five per cent. interest.

As a form of insurance, Chadwick demonstrated, this system was completely unsound. Actuaries showed that the premiums were excessive; one Preston society, for example, charged 7s. 10d. for a risk that an assurance company would cover for 3s. 9d. --- so that, making every allowance for the cost of management, the members paid at least one-third in excess.⁽¹⁾ Moreover, since the undertaker president had an interest in admitting bad lives, the societies frequently failed. The same rate being charged to members of every age, the younger men perceived that they were paying more than they should; if they were in a majority, they revolted, broke up the club, and so deprived the older men of the benefit for which they had long sacrificed. There was some evidence, too, that multiple insurances on the lives of children, by placing "interests in operation against moral duties"⁽²⁾, acted as bounties on neglect and infanticide. A child could be buried for £1 or £1 10s. The clubs allowed from £3 to £5 for the purpose; and the child might well be in four or five societies. Hence the common phrase in Manchester: "Aye, aye, that child will not live; it is in the burial club".⁽³⁾

By this time Chadwick was far beyond the range of previous explorers of the subject, and was embarked on an uncharted sea that James Mackinnon and "Walker of the Graveyard" had not dared to penetrate --- and whither Sir James Graham made no attempt to follow him. He now turned to make a merciless analysis of the trade in burial. On the mortality returns of

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1. "Supplementary Report", p. 62.
2. MS fragment, n.d.
3. "Supplementary Report", p. 64. A case was recorded of a child being entered in nineteen clubs.

the previous three years the number of deaths in London averaged 114 a day. Competing for those 114 bodies the Post Office Directory for 1843 enumerated 275 persons whose sole business was undertaking. In addition, however, there was a multitude of inferior tradesmen, who retained the undertaker's insignia in their windows for the sake of one or two orders a year; drapers, tailors, bakers, publicans, even butchers; carpenters almost without exception, and all those engaged in any way on the working of wood, cabinet-makers, upholsterers, packing-case makers; as well as appraisers, auctioneers, sextons, and parish clerks.⁽¹⁾ All these obtained their funeral supplies from one of the principals in the trade; and in the last analysis it was some sixty of the principal undertakers who performed the real service, the inferior agents merely interposing their unnecessary offices, and stepping up the charges to allow for their own remuneration. The undertakers' trade thus presented the spectacle of increasing numbers of competitors engaged in an increasingly violent competition --- but the result was heightened prices, the very reverse of that which common economic theory dictated. The case was, however, anomalous; for the competition was unreal, and was destitute of the element of free choice on the part of the purchaser of the service. Anxiety, common decency, and the necessity for the immediate performance of some of the last duties, prevented the friends of the deceased from going from tradesman to tradesman, as if they were dealing with an article of commerce. When a death occurred, the funeral benefits were so much "exposed prey"⁽²⁾ for the undertaker. The experienced tradesman would find out how many societies the deceased belonged to, and whether £10, £15, £20 or more was the amount due to the widow, and he would then arrange the funeral accordingly. Once the funeral was over, the widow could not dispute the bill without laying herself open to the charge that proper respect for the dead was begrudged. The estimates were therefore never scrutinised

1. "Supplementary Report", pp. 53 - 4.
2. *ibid.*, p. 52.

closely. The undertaker was told to provide "what was respectable", and his interpretation of respectability involved a liberal profit to himself. The total cost of funerals in England and Wales in one year Chadwick calculated to be about £4,371, 493. In London alone probably nearly a million pounds was annually thrown into the grave.⁽¹⁾

The Commons Committee of 1842, under the influence of its chief witness, the Bishop of London, had been strongly in favour of the continuance of parochial control, and Mackinnon in his Bill had provided for the establishment of extramural cemeteries under the management of a parish committee of health. Chadwick brusquely rejected the suggestion that the evils connected with burial should be remedied by the very agency under which they had sprung up, and which had hitherto maintained them in the face of all remonstrances. Extramural cemeteries under parochial management had in fact been tried, he asserted, and had failed. St. Giles'-in-the-Fields, St. George's, Hanover Square, St. James', Westminster, and St. Martin's-in-the-Fields had obtained Local Acts for the purpose forty or fifty years before. All four grounds were now as closely hemmed in by buildings as were the old parish churchyards. In the two acres of the St. George's cemetery a thousand corpses a year were being interred, while in the 46 years of its existence the chapel and ground of St. James' had cost £50,000 more than the receipts.⁽²⁾ These examples would be multiplied if each of the 170 parishes of London were empowered to open its own ground, to be managed by ignorant sextons and gravediggers, under the control of a local board which was exposed to the influence of personal interests and lacked the knowledge to grapple with a subject requiring a high degree of science and medical skill.

In Government circles it was felt that, if the parish administration had failed, the solution was to trust to the operation of natural economic forces, to that pursuit of

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1. "Supplementary Report", p. 70.

2. *ibid.*, pp. 97 - 8.

individual profit which, as a by-product, brought about the benefit of society. Already the majority of Dissenters, who could not be admitted into consecrated ground, together with many Anglicans who were appalled by the condition of the churchyards, were burying their dead in cemeteries owned by individual entrepreneurs or joint stock companies.

Unfortunately, Chadwick bluntly revealed, the arrangements of the capitalists showed as little regard for health and decency as those of the sextons and gravediggers. Most crowded of all were the private cemeteries, usually owned by undertakers, where, as one Dissenting minister testified, the heaped soil thrown out from the graves was saturated and blackened with human remains and fragments of the dead, and the splash of water as the coffin descended into the grave sent shudders through the mourners.⁽¹⁾ Churchmen sneered at these "Dissenters' grounds". The Dissenters retorted that they were in fact general cemeteries, and that the majority of those buried in them were not members of Nonconformist congregations, the practice being for some unqualified, uneducated man to don a surplice and read the Anglican or any other form of service that the mourners desired.

Nor were the joint stock cemeteries, more recently established under Private Acts, so superior as their shareholders claimed. They calculated on 11,000 interments in common graves for every acre, though well considered regulations allowed no more than 1,452. One company, burying more than five deep, had made £17,000 gross profit on each acre of its ground. The only effect of the Cemetery Acts, in which neither the promoters nor the Commons Committees had seen fit to insert the improvements suggested by the best foreign experience, had been to remove burial to better looking and usually better situated grounds; which, however, merely served to transfer the evils from the centre to the periphery of the towns, so erecting obstacles to the healthy growth of the suburbs.

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1. Rev. John Blackburn, Secretary to the Union of Congregational Dissenters; "Supplementary Report", p. 135.

In the disposal of the dead the casual operations of English capitalists and parochial authorities lagged far behind the achievements of the benevolent absolutisms of the continent. Interments within the walls of Vienna had been forbidden by Maria Theresa; the eight extramural cemeteries of Paris had been established as long ago as 1765; in 1794 the Preussisches Landrecht had decreed that no burials should take place in churches or in the inhabited parts of towns. In English political circles, however, the administrative devices of the foreigner, if referred to at all, were usually mentioned not as examples to be emulated but as awful warnings to be avoided. It was a prejudice not shared by Chadwick, who based his recommendations for reform on a close study of continental models, and in particular the municipal cemeteries of Frankfort and Munich and the Parisian "Service des Pompes Funèbres". With a severe logic, which conceded nothing to the interests in burial, he sketched a radical and comprehensive scheme, which met in turn with a well-designed remedy every abuse that he had enumerated. All interments in towns must be prohibited, "without any exception of places, or acceptance of persons".⁽¹⁾ The joint stock cemeteries and the private grounds must be bought out. The churchyards must be closed, their sites being kept as open spaces for the public use. In their place national cemeteries should be established, on ground selected according to scientific principles, with suitable decorations and vegetation chosen on the best artistic advice; and these publicly owned cemeteries should be managed by officers possessing appropriate qualifications. The danger and indecency arising from the prolonged retention of the corpse in the one-roomed homes of the poor should be averted by providing "reception houses" (sc. mortuaries), such as those at Frankfort and Munich, to which the body was removed by the municipal authorities on the notification of death, and where it was kept under medical inspection for three days before burial. The

public officers in charge of the cemeteries should be empowered to enter into contracts for the supply of funeral services and materials, which might be offered to the public on various scales, such as those laid down by the funeral monopoly in Berlin or by the "Service des Pompes Funèbres" in Paris, which supplied nine classes of service on a fixed tariff, besides burying free of charge about one-third of all who died each year in the city. While individuals should be free to obtain

supplies elsewhere if they chose, the aim must be the gradual extinction of private supplies of funeral materials and services.

(1) By such large-scale contracts the funeral expenses of the upper and middle classes might be cut by at least two-thirds, while artisans could be buried at half the present cost; the total saving on burial in London alone would be about £350,000 a year. The initial cost of the national cemeteries could be defrayed by a loan, the annual charges being met out of a fund into which all burial dues were paid. Apart from the cemetery owners who were to be dispossessed, the interests of three groups were affected by the scheme, the clergy, the Dissenters, and the undertakers. The clergy should be compensated for the loss of their burial fees; the Dissenting congregations who lost their graveyards should receive an equivalent space in the public cemetery. But Chadwick could see no reason to hold out promises to the hundreds of inferior tradesmen who gave themselves the title of undertaker.

It is the most courageous, the most clear-cut, the most coherent of all his schemes; but it bears on its face the prophecy of the failure, which dogged it for the eight unhappy years of its history. Chadwick had forgotten nothing. He believed that he had answered by anticipation all objections, conciliating those bodies which had legitimate interests, exposing and rebutting those whose claims could not be justified. He was soon to find that to answer an argument was not to

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1. "Interment in Towns. Memoranda of the Chief Heads", MS fragment, n.d.

silence an opponent. He had shown that abroad the various parts of his plan were at that very moment working effectively and to the satisfaction of the people. The problem remained of convincing English statesmen that ideas which thrived under German despotism or French centralisation could bear transplanting to the freer soil of England. Chadwick concluded his Report with the appeal that the Government "should only set hands to this great work, when invested with full powers to effect it completely: for at present there appears to be no alternative between doing it well or ill"(1) A Tory Home Secretary of the eighteen-forties, called upon to interfere with large masses of capital, to arbitrate between the Church and the Dissenters, to lay on Government a delicate and unaccustomed burden, might well hesitate and consider that between the two absolutes of "all or nothing", "well or ill", that Chadwick presented there stretched an infinite possible series of piece-meal improvements.

There remains to be discussed what Chadwick regarded as the pivot of the whole scheme, a proposal, however, which had an independent life of its own, and so may be considered apart from the interments problem with which it was at first inseparably linked by Chadwick. This was his suggestion that local authorities should appoint medical officers of health, to perform certain necessary duties connected with the public burial service, and in addition to carry out other measures of medical police. In 1843, in Liverpool alone, engaged in the business of cure or alleviation, Chadwick found 50 physicians and 250 surgeons, apothecaries, and druggists, while not one responsible public officer was employed to investigate the causes of disease with a view to prevention. Nor had the City of London, with a population of 125,000, one such officer,

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1. "Supplementary Report", p. 201.

though it spent £72,000 a year on hospitals and medical charities for the alleviation of disease.⁽¹⁾ There were, it was true, scattered over the country, the 2,327 medical officers in the Poor Law service.⁽²⁾ But these were cramped and starved in their activities by the parsimony of Somerset House; they were subjected to unwholesome influences⁽³⁾, and their miserable

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1. "Supplementary Report", p. 189.

"I find that in this county (Lancaster)", Lyon Playfair reported to the Health of Towns Commission in 1844, "there are, according to the census, 76 physicians and 1,246 surgeons and apothecaries. To make up prescriptions there are no less than 1,259 chemists and druggists. Here, then, we have a body of 2,581 men connected with the medical profession; and supposing that each practitioner, on an average, receives £300 per annum, we have a sum of £774,000 per annum devoted exclusively to the business of the cure and alleviation of disease, and not one single professional man appointed, not one public endowment or provision made to ensure attention to the means of prevention; nothing devoted to ascertain the causes of death; nothing done to remove those causes of disease which are proved to be removable; nothing done to warn against defective drainage and to promote external and internal cleansing; no visits to ensure the due ventilation of schools or workshops, of mines or houses; nothing done to point out the influence of various noxious agencies to the public health, --- cesspools, slaughter-houses, grave-yards, or offensive and injurious trades! In short, at least five million pounds per annum (sc. Playfair's estimate of the value of the adult labour lost by preventible disease) are paid to sustain the attacks of preventible disease against the population of this county and not one pound to remove or weaken the sources from which these attacks gain strength". (Second Report, vol. 2, pp.

474 - 5).

2. Chadwick's figure in a letter to Normanby, 3 February 1841. In December 1846 the Commission employed 2,680, each of whom averaged 30 visits a week. (Nicholls, "History of the English Poor Law", vol. 2, pp. 405 - 6).
3. Before Ashley's Medical Relief Committee (1844) some of the witnesses "developed a very maleficent source of adverse interest, the interest of the influence of the landlords of small tenements who are guardians for particular parishes. These men who have little to do but to collect their weekly or other small rents are apt to get into parochial office and as members of Boards of Guardians to insist upon outdoor poor relief in money which is in fact payment of their own rents out of the poor's rates. In proportion as

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pay did not free them from the necessity of attending private patients, so that, as Chadwick testified, many of them "hold office merely to keep out rivals or interlopers from their field of private practice; they serve very unwillingly and are in perpetual hostility with the Boards of Guardians".⁽¹⁾

In the England of the eighteen-forties, however, the medical profession as a whole had great need to put its house in order. Of 1,830 medical men who presented themselves to fill offices under the Poor Law Commission in 1834, 327 had not been examined in surgery, 323 had not been examined in medicine; and 233 had not been examined by any medical body at all.⁽²⁾ The twin oligarchies of the Physicians and the Surgeons were less concerned to advance medical science and raise professional standards, than to assert the superiority of their members in the face of competition from "Scotch doctors", the lowly Apothecaries, and the "general practitioners" who were now being turned out in increasing numbers by the Hospital Schools.⁽³⁾

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(Continued from previous page) they are profuse in this expenditure they are niggard of any other. And the medical officers state they dare not report on the ill condition of dwellings for fear of offending this class and getting dismissed by them on some collateral complaint against which they have no protection. Hence the argument for making the medical officers irremovable except at the instance of a distant an impartial and responsible authority". (E.C. - Dr. Laycock, 29 April 1844).

1. "College of Physicians reply to. Controversy with the College of Physicians and its jealousy of the first General Board of Health", MS, n.d. (c. October - December 1843).
2. Speech by Sir Benjamin Hawes on Second Reading of Medical Reform Bill; Hansard, vol. 57, pp. 329 - 33, 17 March 1841.
3. "The General practitioners have hitherto been in antagonism to the College of Physicians. The College of Surgeons has not been more popular with them. Howsoever disguised, the main source of dissatisfaction arises from the fact of it being one class of private practitioners, legislating, regulating, or assuming to determine, qualifications and emoluments of the other classes of private practitioners and by consequence their own position and emoluments in relation to them" ("College of Physicians reply to", MS, n.d.; see note 1).

The profession was expanding rapidly, and in the absence of a public criterion of competency and a recognised course of training it abounded with opportunities for quackery, abuses of practice, and the toleration of the unqualified and the inefficient. It is little to be wondered at that in the social controversies of the time the spokesmen of medicine sometimes cut a very poor figure; that one Select Committee should severely comment on "the ignorance of some who set up for surgical practitioners"⁽¹⁾; and that a Minister should be able to find, when he wanted them, 43 doctors out of 48 in favour of a measure to enable children over twelve years of age to work a full day in the factories --- so reversing the findings of a Royal Commission two years earlier, before whom only one doctor out of 31 supported the same proposal.⁽²⁾ Nevertheless, as Ashley bore witness, in the factory agitation he received more help from the medical men than from the clergy,⁽³⁾ who only too often were "cowed by capital and power".⁽⁴⁾ And from the first, when Chadwick sent Arnott, Kay, and Southwood Smith on their tour of investigation in 1838, the doctors were the strongest supporters of the sanitary movement, from the Queen's physician, Sir James Clark, and the University professor, W.A. Guy, down to the dispensary and hospital physicians, Joseph Toynbee, Thomas Laycock, William Duncan, and the unnamed rank and file of the Union surgeons and general practitioners. "Of all the professions, the members of the medical profession are the shortest lived and the poorest", said Southwood Smith, speaking at a public meeting to raise a subscription for the family of Dr. J.R. Lynch, a brilliant young surgeon whose life had been cut short by a fever contracted in the slums.⁽⁵⁾

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1. Select Committee on Factory Act, P.P. 1841, ix.p. 8.
2. Poulett Thomson; Hansard, vol. 32, p. 273, 15 March 1836.
3. E. Hodder, "Life and Work of the Seventh Earl of Shaftesbury", vol. 2, p. 209.
4. *ibid.*, vol. 1, p. 346.
5. "Health of Towns: Report of the speeches of Edwin Chadwick, Esq., Dr. Southwood Smith, Richard Taylor, Esq., James Anderton, Esq., and others", pamphlet, 1847, p. 10.

Visiting patients in their one-roomed homes, and encountering some of the same hazards and discomforts, they saw the obverse of that splendid picture of power and wealth which dazzled the eyes of the majority of the ruling classes. (1)

While welcoming these allies, Chadwick was watchful of their pretensions. Medicine had its part to play in the defence of the public health, but it was not the pre-eminent rôle that most doctors would claim for it. The doctor's efforts must be strictly subordinated to those of the engineer and the administrator; and in proportion as the sanitarians were successful in rooting out the causes of disease from the environment, they would render less necessary the traditional ministrations of the medical man. In 1843 the public medical service was represented only by the Union surgeon, whose cheapness and servility were despised and resented by their fellow practitioners. (2) Yet the publicly employed medical officers, if their status and qualifications were improved and the scope of their duties widened, could perform more valuable services to society than the private dealers in physic, concerned as these were with the effects of disease, not its causes.

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1. "Often the family doctor mingles in the crowd of mill-people as they leave at night and greets them again in the early morning as they congregate to their toils without his having, meanwhile, pressed his pillow. By the way it is a curious sight --- the swarming streets at a quarter past five of a cold stormy winter morning. Who but this poor drudge sees it? Most educated people who live on the spot don't know that the labourers, men, women, and children, rise at five, be the weather fine or foul at the sound of the bell to their work" (Dr. John Robertson - Mrs. Chadwick, 14 February 1845).
2. "They are generally considered to be the enemies of the Profession, who undersell their Brethren; and rush into danger not from any necessity on the part of the public; but simply for a miserable pittance which they accept as the full value of their exertions to the great detriment (as it is considered) of the better educated and better qualified part of the profession". (Dr. J. Sutherland - E.C., 30 August 1847).

Already in the "Sanitary Report", as we have seen, Chadwick had urged that the fragmentary functions executed by part-time medical officers should be combined and entrusted to a single full-time district officer with superior qualifications (1) He now went on to argue that, if burial were to become a public service, such an appointment would be essential. On the occurrence of a death the officer of health would be summoned to inspect the corpse, and would note the name, age, occupation, and cause of death. He would urge the relatives to have the body removed to the reception house as soon as possible, and would also supply them with a tariff of the prices of burial. If the death had been caused by the insanitary condition of the premises, he would notify the officers of public works so that they might take steps to cleanse and whitewash them at the owner's expense. In cases of epidemic disease, he should be empowered to order the removal of other members of the family to the hospital fever ward. (2)

"The ordinary service of such an officer would consist of the verification of the fact and cause of death, and its due civic registration", states Chadwick. (3) This is indeed a very oblique entry upon the duties of a Medical Officer of Health, as the term is now understood, but there were strong reasons why Chadwick should stress this and other functions which in modern society are performed by the general practitioner, the registrar, and the undertaker. For all civic and scientific purposes, declared Chadwick, the existing system of recording deaths was gravely deficient; it was useless for determining titles to succession, for furnishing data for insurance tables, and for showing the common causes of disease incident to different occupations and localities. During the plague of 1595 the Privy Council had ordered that all bodies should be viewed before burial, and that the minister or churchwarden of

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1. See above, p. 113.
2. "Supplementary Report", pp. 160 - 166.
3. *ibid.*, p. 159.

the parish should make weekly returns of deaths to the magistrates, who should forward them to the Privy Council. From that date until the Registration Act of 1836, the parish officers had appointed as "searchers" two old women, frequently pew openers, who merely looked at the body, demanded liquor and a two shilling fee from the relatives, and certified the fact and cause of death as they were informed of it. No provision was made in the 1836 Act to replace the "searchers" by more efficient machinery. The only qualifications stipulated for the local registrars were that they should be resident in the district, solvent, and without any clashing duties⁽¹⁾; and they were not in any event required to visit the house of the deceased and enter the details on the spot. Popular rumour and the suspicions of neighbours were thus the only securities against foul play. In London inquests were initiated by parish beadies or constables, to whom they were a source of emolument, and instances were known, and more suspected, where they had been paid to keep silent. Most of the local registrars had encountered cases of prima facie suspicion which had eluded

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1. In a letter, addressed probably to Lord John Russell, Chadwick criticises the unsuitable character of many of those appointed as Superintendent Registrars under the Act of 1836. Thus, at Manchester a Calvinistic Dissenter had been appointed, so outraging all Churchmen and all Dissenters who were not Calvinists. "Having had occasion to go to Leeds whilst staying at the house of a leading whigg I heard expressions of regret at the impression created amongst persons of respectability by the appointment of the Superintendent Registrar of that town: the first Superintendent one George Rawson was a lecturer on temperance i.e. in beer not politics; an itinerant anti corn law agitator; a non conformist preacher and an agent for the "Reform Interest". His sub registrar Thomas Wilson was an Inn Keeper and reform agent. I believe it will be found that it would in a party point of view have been worth while in every case of such an appointment to have given each person three or four times the amount not to have their appointment made or to have sent them elsewhere, to have given them expensive outfits and to have sent them for example as justices to Sierra Leone or to the West India Islands, to any part of the Empire except to the towns where they were known". (8 January 1841).

these flimsy safeguards. How many children perished from overdoses of "quietness", Chadwick wondered, or were more slowly and painfully poisoned by it? How many died as a result of incorrect treatment for croup and pneumonia by unqualified practitioners, such as retail druggists, who were in attendance at the death of one infant out of every four? How many were murdered for the burial money? In Scotland, where there was neither coroner nor inquest, the consequences were even more serious. Cases of children overlaid by drunken parents, cases of death from maltreatment in prison, from drinking wagers, from falling into machinery or down pit-shafts --- all went without investigation. Unless a complaint were lodged, the police rarely interfered; nor did the procurator fiscal or the magistrates, for a demand from these judicial officers to inspect a body would be regarded as tantamount to a charge of crime.⁽¹⁾

Chadwick's first argument for the officer of health, therefore, is grounded on the principle that "all difficulty, all labour interposed in the way of the commission of crime, is so much gained of a practical preventive tendency".⁽²⁾ At present any one might go to the registrar's office to record a death, and the only check was the registrar's judgment whether or not the statement was consistent. "There may not only be no death nor body, but no such house or no such habitancy. Require that the registration shall be at the spot where the death took place, and the signatures to be there taken of witnesses present, then you impose on the persons wishing to forge the difficulty of finding an appropriate house, and appropriate witnesses: --- require that the registration shall be upon view of the body, and the law interposes another difficulty, and a very formidable one --- that of finding a

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1. "Supplementary Report", pp. 113, 160, 170 - 173.
2. "Health of Towns Improvements. Draft Clauses for consideration in respect to the appointment and duties of Officers of Health", MS memorandum, prepared for the Health of Towns Commission, 1844.

suitable dead body".(1)

The argument is sound, but the problem of preventing fraud and secret murder was to be solved along different lines, when the attendance of the "family doctor" ceased to be a luxury out of reach of most working class homes. Greater interest attaches to Chadwick's second main argument. "They may in that position obtain in years, or even in months, indications of the certain means of prevention of disease, for which the medical experience of ages has supplied no means of cure, and only doubtful means of alleviation For the promotion of the new science of prevention, and the knowledge of causes necessary to it, a primary requisite is to bring large classes of cases as may be duly observed, under the eye of one observer".(2) The dry grinders employed by the Sheffield cutlers had long suffered from a characteristic lung disease, which cut them off between the ages of 35 and 45, a fate which they bore without complaint or question. Dr. Calvert Holland, by investigating a large number of cases, had shown that the "grinders' disease" was caused by inhaling grit and metal dust, and this discovery had suggested a simple preventive device, a current of air to blow the injurious particles away from the workmen.(3) The views of the medical officers of the army and navy had long been recognised to be of peculiar value in determining the causes of ill-health and indicating methods of prevention. This, Chadwick pointed out, was explained by the fact that they had under constant observation large bodies of men living under similar circumstances, which could be changed at will and compared for purposes of experiment. In the great towns the same opportunities occurred of observing large and organised populations, living under similar conditions; and those of the local registrars who had medical qualifications declared that their position had given them a knowledge of the effects of

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1. *ibid.*

2. "Supplementary Report", pp. 178 - 9.

3. *ibid.*, p. 180.

habits and locality in producing disease as no private practitioner possessed.⁽¹⁾ An officer of health, assembling and scrutinising the statistics of mortality and sickness, could furnish the accurate diagnosis on which the preventive action of the administrator must be based.

For such duties very special qualifications would be required; and in Chadwick's opinion the only safe proof that a candidate possessed the necessary ability would be evidence that he had successfully investigated some scientific problem in preventive medicine. The freedom of action and opinion of the medical officer must be protected by two essential safeguards. First, he should exercise his functions in independence of the local administrative body, since this would probably contain the chief employers, connection with whom would expose him to suspicion of partiality and diminish his influence with the lower classes. It was necessary, secondly, that he should devote the whole of his time to his public duties. "Of a certainty the attention of every private practitioner, as he gains practice, whilst acting as a public officer, must every hour of the day be from his public duties, and with the means of adding to his emoluments. That the least possible time may be taken from them, the public duties are slurred over, conclusions are snapped from the readiest superficial incidents; extensive and removable, but latent causes of evil, the development of which would require sustained and laborious examination, are perpetuated, by being stamped authoritatively as "accidental" or arbitrarily classed under some general term assigning the evils as the result of some inscrutable cause".⁽²⁾

In the Report on Interments the officer of health appears chiefly in the unusual character of a recorder of death and a superintendent of burials. We may look ahead a little, and observe how within less than twelve months Chadwick was submitting to the Health of Towns Commission an interesting

memorandum, worthy of more attention than it received, in which the appointment takes on the lineaments with which a later generation became familiar.⁽¹⁾ In this paper the functions of the medical officer are greatly widened and enriched. He should be required to inspect periodically the various parts of his district, looking for any external and physical circumstances likely to be injurious to the public health, and taking proceedings for the abatement of public nuisances and the pollution of the atmosphere by offensive smells. He should visit all schools, factories, workshops, common lodging-houses, public rooms and places of resort, inspecting the arrangements for ventilation and cleansing, and enforcing the law in cases of sickness from wanton neglect. During such inspections, he should "take note of the children or workpeople, who appear to be pallid or sickly, or in a peculiarly low condition of health, and inquire as to whether such evident low condition have been produced by overcrowding and defective ventilation, imperfect cleansing, or other removable cause". On the outbreak of any epidemic, endemic, or contagious disease, all measures of precaution and prevention should be under his control, and he should be empowered to issue instructions to all public officers, including the Union medical and relieving officers, surveyors, scavengers, police, and others. Arrangements for vaccination should be directed by him, and he should have power to direct that children lacking certificates of vaccination should be excluded from schools and places of work until the vaccination had been duly performed. He should undertake the analysis of matters sold as food or drinks, taking measures to stop the sale of dangerous, injurious, and unwholesome adulterations. He should inspect all children who applied for certificates of age, strength, and bodily ability for labour in mines and factories; and also all recruits for military service.

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1. "Health of Towns Improvements. Draft Clauses for Consideration in respect to the appointment and duties of Officers of Health", MS, n.d. (C. December 1844).

And, finally, he should be required to present an annual report, giving the statistics of sickness and mortality for his district, comparing it in these respects with other places, analysing the causes of each class of cases, and specifying those causes which he considered to be removable or preventible for the future.

In all this Chadwick anticipates intelligently the later emergence and development of the Medical Officer of Health⁽¹⁾, but it was to take nearly seventy years to establish the conditions in which that most valuable of all local officials could function, as Chadwick desired, as an impartial adviser and guardian of the public, independent of local influences, and defended against the intimidation of threatened interests. When the proposal was first made, the leaders of the medical profession were slow to recognise its importance⁽²⁾; and the

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1. Chadwick's list may be compared with the duties of the modern M.O.H. as enumerated by Nwesholme, "Ministry of Health", pp. 40 - 42. The parallels are close, though changing conceptions of public health have led to the growth of new services which Chadwick could hardly be expected to foresee (e.g. for maternity and child welfare).
2. The preparation of a Bill to regulate the medical profession was entrusted in 1845 to Sir Benjamin Brodie, an upper class physician of the old school. The Bill provided for a Board of Health to advise the Government on the mode of dealing with epidemics, Chadwick remarked to the Duke of Buccleuch, (31 March 1845) but "provides no means that I can see of keeping informed and in practical action the agency that is to inform and act practically".

A Board of Health without local agents, such as Brodie proposed, Chadwick told Peel's physician, Dr. J. Hodgson, would be like the Poor Law Board without its Assistant Commissioners, a head without eyes or arms or hands. As it stood the title was a misnomer, since the Board was a body constituted to deal solely with the traditional medical functions of curing and alleviating disease, and preventive action was beyond its scope. (22 April 1845).

politicians at once objected that it would be "unpopular". As one critic wrote, the powers such an officer would wield were "far too vague and arbitrary; and would be considered an infringement of the liberty of the subject, intolerable in a free country. A man's home would no longer be his castle, into which no one must penetrate without a special warrant".⁽¹⁾ In the swarming tenements of Whitechapel and Bethnal Green this talk of inviolate "castles" must have sounded strange, but the argument that the poor would resent having "little inquests" held in their homes weighed heavily with the sentimental middle classes, and diverted attention from the less questionable duties of the officer of health.⁽²⁾ It was indeed unfortunate that the appointment should have first been presented as part of Chadwick's scheme for national cemeteries and a public burial service, and so shared the disfavour with which that scheme was generally regarded in Government circles. Not till 1846 did Chadwick's suggestions bear fruit, when Liverpool appointed the first Medical Officer of Health, William Duncan, under the terms of its new Local Act. And Duncan was employed on conditions which ran completely counter to the principles laid down by Chadwick. The Corporation paid him £300 a year only, and allowed him to continue in private practice. For a year he acted merely as a weekly registrar of deaths; when it was urged that he might make reports on conditions in the city, the Corporation refused their consent, "and the reason given was

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1. Thomas Stewart Traill - Dr. W.P. Alison, 25 April 1845.
2. "Mr. Macaulay told me that the people would not put up with the domiciliary visits of such an officer. In answer to this ignorant assumption I pointed to the fact that they do put up with domiciliary visits of every sort. Mr. Farr of the Registrar General's Office in England has been registering on the spot, as a matter of experiment which has justified all anticipations and shewed the groundlessness of the apprehensions of unpopularity: which if real it were a duty to meet. According to these legislators, the darkest ignorance is to supply the norma of legislation". (E.C. - Dr. W.P. Alison, 6 May 1847).

that if Dr. Duncan recommended any step it would be needful for the Committee to take it".⁽¹⁾ Fearing that this bad example might be followed by other towns, Chadwick protested energetically to the Home Secretary, and as a result in 1848 Duncan's salary was raised to £750 and he was employed on full-time health duties.⁽²⁾

The Interments Report, containing in its sombre pages the most powerful of Chadwick's exposures of social evil and the most revolutionary of his administrative proposals, was a strange volume to emerge from a Government department in 1843. Throughout the summer its fate was in balance.⁽³⁾ Chadwick continued to amass evidence, visiting Manchester, Nottingham, Derby, and Leicester, and corresponding with a dozen other places. When he submitted a revised draft to Sir James Graham in December, he was able to assert with confidence that any investigator who followed the path he had trodden would find his description if anything an understatement of the evil.⁽⁴⁾ He sent the Report out at last as a Christmas and New Year gift to his friends. "It was the most difficult and the most painful of the painful investigations which I have been called upon to conduct", he told Ashley, "and unless it be followed by some

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1. Dr. J. Sutherland - E.C., 17 February 1843.
2. As the Liverpool Local Act subjected the fitness and salary of the medical officer to the approval of the Home Secretary, he declared, it was within the Minister's power to withhold his approval for a salary of a size that would necessitate the officer giving some of his attention to private practice (14 January 1847). "I trust there will be no more such attempts again", wrote Sutherland after Chadwick's successful protest, "and that the precedent of interference on the part of the Secretary of State, with the doings of our town Council, will teach other public bodies what they may expect if they mistake their duty in a similar manner" (18 February 1847).
3. "I am sorry that your report is likely to be stifled, because I think it the best you have ever written" (Rev. Whitwell Elvin - E.C., 13 May 1843).
4. E.C. - Sir James Graham, 4 December 1843.

better and more complete adoption of the measures than is usual, I intend that so far as I am concerned it shall be the last that I conduct".⁽¹⁾ The published Report did not rise to the full height of his views, but --- as he told Lord Lovelace --- "I am as yet only a slave of the lamp (by Lord Althorp's breach of engagement with me)". "My report, your Lordship should remember", he continued, "had to undergo a jealous official ordeal before permission to print was obtained. I rejoice at having obtained leave to print so much".⁽²⁾

As Chadwick had foreseen, the Report was unpopular with the Dissenters, the Cemetery Companies, the undertakers, and churchmen like the Rev. Mr. Tyler⁽³⁾, who looked like losing £800 a year if his churchyard were closed. "It warms one into impatience to see the grand plan adopted", Professor Owen had written, after seeing the first draft. "I hope you will live to see it in full operation: yours will then be --- or ought to be --- the most conspicuous Mausoleum in the chief National Cemetery, and a grateful people, who will only know the evils you have remedied by your descriptions in the effort to banish them, will point it out first to their children".⁽⁴⁾ But public monuments and a nation's thanks were far from Graham's mind, when he turned over this plan which coolly proposed to

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1. E.C. - Lord Ashley, 13 December 1843.
2. E.C. - Lord Lovelace, 1 January 1844.
3. E.C. - Bishop of London, 22 December 1843.
Dissenters' pamphlets, he told Graham (28 February 1843) "are extremely violent, and carry little other feeling with them than that of owners of grounds who are likely to lose money by anything tending to a restoration of the Church burials.

The Irish Catholics are the most troublesome and difficult to deal with and the most likely to resist alterations (Dr. Gillis, Bishop of Edinburgh) consulted the Vicar General and others and they gave him to understand that inasmuch as their church at Moorfields was now full they would make no opposition but felt no interest in the matter Considering the deplorable state of the population, I think it must be confessed that the Church has been very backward not to say culpably remiss in this matter, and the State or the Government which undertakes the labour may fairly claim the full or chief credit for it".

4. E.C. Prof. Owen - E.C., 12 February 1843.

sweep away important profit-making interests, which trenched upon the traditional prerogatives of the Church, and threatened to stir up a buzz of sectarian jealousies. It was soon clear that he would take no step except on the heels of a strong public opinion. One important supporter could be counted upon; the Bishop of London favoured a scheme which would rescue the clergy from the competition of the cemetery companies with their unqualified chaplains⁽¹⁾, and his influence offered the main hope of stirring the Home Secretary into activity.⁽²⁾

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1. He told the Lords (Hansard, vol. 57, p. 1063, 26 April 1841) that the Kensal Green Cemetery had caused a diminution of £200 in the income of the rector of the neighbouring parish.
2. Graham stated (Hansard, vol. 35, p. 468, 2 April 1846) that he wished the Bishop would introduce a Bill himself, which offered the best chance of avoiding trouble with the Church.

CHAPTER 5.HEALTH OF TOWNS COMMISSION, 1843 - 1845.

Sir James Graham, the Tory Home Secretary, had inherited from Lord Normanby three Bills for the drainage of towns, the improvement of boroughs, and the regulation of buildings, but he had not inherited with them also that nobleman's enthusiasm for sanitary reform. The status quo has rarely had a more devoted spokesman nor a more skilful stonewaller than Sir James Graham. Overbearing in his manner, with a hard, limited mind, massively impenetrable to argument, he opposed all the resources of his powerful will to the social reforms of his time. He had done his best to hold back the report on the employment of women and children in the coal mines. He had --- says Ashley --- so terrified the Factory Inspectors that, though they shared Ashley's views on the Ten Hour Bill, they did not dare to say so.⁽¹⁾ But, if he resisted Ashley's "Jack Cade legislation", it was not out of a perverse obstructionism, but because, when confronted by the great social questions of the age, Graham, like Peel, was often at a genuine loss to see a practicable solution. He had, as a deputation from the Lancashire Short Time Committees discovered in November 1841, "drunk too deeply at the fount of Malthusian philosophy".⁽²⁾ For him the iron laws of the economic order --- perpetual and unchanging since they were rooted in the ineradicable concupiscence of man ---- bound the working classes to a life which he summarised as "but eating, drinking, working, and dying". He walked in blinkers, seeing everywhere the limits set by his own preconceptions as the inescapable decrees of nature. It is, therefore, a measure of the effect of Chadwick's reports and of the ground gained by the

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1. E. Hodder, "Life and Work of the Seventh Earl of Shaftesbury", vol. 1, pp. 409, 418.
2. "Manchester and Salford Advertiser", 8 and 15 January 1842.

sanitary campaign, that early in 1843 the Home Secretary decided to refer the question to a Royal Commission. For, as Graham told Peel, in opposing a proposal to inquire into the state of education in the manufacturing districts, "a Commission is most useful to pave the way for a measure, which is preconcerted; take, for example, the Poor Law Inquiry; it is often most embarrassing where it discloses the full extent of evils for which no remedy can be provided, as, for example, the inquiry into the condition of the hand-loom weavers. I might add Lord Ashley's investigations into the sufferings of children employed in factories and mines".⁽¹⁾ Thus, the sanitary question was moving into the arena of practical politics. Reluctantly, impelled more by the pressure of opinion from behind and without than by the drive of inner conviction, a Tory Home Secretary was consenting to explore the ground with a view to ultimate legislation.

Graham's first move was to halt the progress of Normanby's Bills, which had twice passed the Lords and had reached their Second Reading in the Commons. This action, though it dismayed Ashley⁽²⁾, met with Chadwick's heartiest approval, for the Whig measures, drafted by the experts of the Woods and Forests department without reference to the evidence collected by the sanitary inquiry, seemed more objectionable to him with every appearance they made.⁽³⁾ He was equally pleased with Graham's next decision. From vestries and Board rooms

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1. C.S. Parker, "Peel Papers", vol. 2, p. 548.
2. E. Hodder, op. cit., vol. 1, p. 361: "The remedial Bills for ventilation, drainage, and future construction of the houses of the poor, brought in carefully and anxiously by the late Government, are not to be adopted by this! so I was informed this evening, and I blessed God that I formed no part of it".
3. It would appear from Chadwick's numerous memoranda on the subject (see above, p. 32), that J.L. and S. Hammond's description of the "drastic and revolutionary character" of these Bills ("Age of the Chartists", p. 293) overvalues their technical and administrative importance.

in every Sewers division of London the Government had heard rumblings of alarm and anger, and something weightier than the report of a single Civil Servant would be needed to batter down their defences.⁽¹⁾ The Sewer Commissioners were, therefore, to be given a second hearing before a Royal Commission. Chadwick, having no fears for their verdict, welcomed the idea; an inquiry whether the principles of drainage he had indicated were applicable to the Westminster division of sewers would in effect be an inquiry whether in the Westminster division there was any exception to the law of gravity. The Royal Commission, however, should do more than listen to affronted Sewers Commissioners and their protesting surveyors. Chadwick was well aware of the limitations of the sanitary inquest on Great Britain he had conducted brilliantly through three laborious years. To those who, like Ashley and Normanby, pressed for immediate action on the conclusions of that report, he replied that, while he had established the general principles which must guide legislation, he had not indicated the particular measures in which they were to be embodied. The "Sanitary Report" had shown the necessity for combined works and an adequate water supply, but it had not laid down the legislative methods by which those objects were to be attained. It had concluded that securities must be taken to ensure that public works were constructed by men of practical skill and scientific knowledge, but such securities were so far outside the range of the old style Local Acts that no legal draughtsman could lay his hand at once upon a suitable form of clause.⁽²⁾ Hence, he urged on

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1. Richard Kelsey, surveyor to the City Commission, for example in a "Report on the Sewers of London", 5 September 1842, maintained that "without their Surveyors presumptuously applying to themselves the, often impudently assumed, and much prostituted title of Civil Engineer; they have conducted their works with judgment, and foresight, and success". Chadwick amplified his case against the Sewers Commissions in "Drafts of communication in answer to Comms. of S.", MS, n.d., probably submitted to Graham.
2. "Memoranda of answers to the imputations of blame in respect to alleged delay to adopt sanitary measures", MS, 13 July 1844.

Graham, the object of the Royal Commission should be to investigate and demonstrate by actual trial the various means for applying the principles he had established. He dwelt with inexorable detail on the syllabus he proposed to set before them. They might, for instance, test some of the suggested improvements in house construction; the advantages, in particular, of circular drains of tile or stone over square drains of porous brick. These inquiries, which were usually overlooked as matters of detail, would furnish the basic data for public contracts. The Commission could then go on to consider wider questions of municipal engineering; the practicability of a constant water supply; the capacity and flow of sewers; the means of relieving districts lying below any natural outfall by steam power. And finally, what was equally important --- for it was useless to demonstrate improvements without showing how they could be paid for --- they could determine "the jurisprudential arrangements for the distribution of the burthens in coincidence with the benefits".

"It is an important impression to extend", he concluded, "that drainage is a matter of Science or its practical application and not of mere common sense or general Knowledge: and that Science and special qualifications are essential for the paid officers conducting it. For the sake of extending this impression I would most respectfully urge the necessity of confining the Commission to persons of special qualifications generally recognised, as men of engineering or medical or legal science".⁽¹⁾

This enthusiasm for sanitary detail was impressive, if not infectious, and Graham followed Chadwick's recommendations closely. It was not, on paper, an unpromising list of Commissioners. Southwood Smith was not there, though he of all men next to Chadwick had the right to be heard. But there were Neil Arnott, Lyon Playfair, James Smith "of Deanston", the

famous authority on land drainage, and the zealous Professor Owen, who once declared "I would rather achieve the effectual trapping of the sewer-vents of London than resuscitate graphically in Natural History records the strangest of the old monsters which it has pleased God to blot out of his Creation".

(1) The sanitary cause was safe with these men. Three of the engineers Chadwick had suggested, Captain Denison of the Royal Engineers, Sir Henry de la Beche, and the younger Stephenson, were also included, together with William Cubitt, the leading building contractor in the country. Chadwick had asked for a lawyer or two; these were denied him, but in their stead Graham introduced a leavening of Parliamentary members, a Scottish Duke, Buccleuch, to act as chairman, Lord Lincoln from the Woods and Forests, and the mover of the 1840 Committee, R.A. Slaney.

(2) Chadwick discovered at once that, though his name had been omitted by some strange caprice of Graham's, the chief burden of the Commission rested on his shoulders. Some of the medical and engineer Commissioners drifted off into their professional avocations, while the others, willing as they were, lacked his experience and powers of investigation. "Enquiries into the habits of the population, consideration of public policy, and art and science in their application to them are not things to be had by intuition", he told the chairman, "and I can confidently aver that if I had not attended to the Commission

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1. Professor Richard Owen - E.C., 9 September 1844.

2. Chadwick asked for the following:

- (a) Engineers: Sir Henry de la Beche, Captain Denison, Professor Airy (the Astronomer Royal), Professor Faraday, Robert Stephenson junr., Brunel junr., James Smith.
- (b) Doctors: Sir James Clark, Neil Arnott, Sir Benjamin Brodie, Professor Owen.
- (c) Lawyers: the Master of the Rolls, Mr. Justice Coleridge, Lord Cottenham.

The Commission was issued to: the Duke of Buccleuch, the Earl of Lincoln, R.A. Slaney, George Graham, Sir Henry de la Beche, Lyon Playfair, D.B. Reid, Professor Owen, Captain Denison, J.R. Martin, James Smith, Robert Stephenson junr., William Cubitt.

night and day most sedulously far different and less satisfactory results would have been produced able as the several professional members of the Commission undoubtedly are on the subjects to which they have devoted their special attention."⁽¹⁾ He took full command at Gwydyr House, when the Commission began its meetings on the 1st. June 1843; he marshalled the witnesses, he took the notes of evidence, he prepared the resolutions, and he drafted the reports. And at the same time he was confronting jealousy and mismanagement at the Poor Law Commission, completing his Interments Report, replying to the cross fire of four of the metropolitan Sewers Commissions, and bombarding the Home Office with memoranda on a new Buildings Regulations Bill "most preposterously devised by the palace architects".⁽²⁾ He was probably never busier nor more happy in his life.

Under Chadwick's directions, the Commission first despatched a letter with an appendix of 62 questions to the fifty towns with the highest death rates; these included the largest manufacturing towns and the principal ports, comprising a population of three millions.⁽³⁾ But Chadwick would not let them rest content with paper evidence. The towns were divided into six districts; and in the middle of July 1843 the active Commissioners set off in ones or twos on an itinerary he had drawn up for them, with a paper of his instructions to guide them, to see for themselves the conditions in the most populous areas.⁽⁴⁾ Simultaneously, at a number of provincial towns, at

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1. E.C. - Duke of Buccleuch, 17 December 1845.
2. E.C. - A.G. Escher, 24 December 1843.
3. Health of Towns Commission, "First Report", vol. 1, p. xi.
4. "Minutes of Proceedings of the Commissioners for Inquiring into the state of large Towns", M.H.7, MS, 18 July 1843.

The districts were assigned as follows:

Northern District	Dr. Reid
Yorkshire District	James Smith
Lancashire District	Lyon Playfair
North Midland District	Lord Lincoln, James Martin
Midland District	R.A. Slaney
Welsh District	Sir Henry de la Beche
Miscellaneous Towns	Sir Henry de la Beche, James Martin

Liverpool, Preston, Nottingham, York, and Chorlton-upon-Medlock, where he was acquainted with energetic friends of the cause, Chadwick put them to work to report on the state of their districts.⁽¹⁾ Encouraging them with notes of approval, directing their attention to fruitful lines of investigation, occasionally making a sortie himself to inspect some well designed cemetery or the working of a constant supply system, Chadwick drove forward his unequal team of doctors and engineers and politicians. When de la Beche retired discomfited from a sanitary argument at Windsor, he wrote with an unusual sprightliness to ask "into what geological hole have you got to hide your head? Come out and let us hear the rights of it".⁽²⁾ To Dr. Laycock, who was preparing a report on York, he suggested that an estimate should be made of the number of medical practitioners whose income was derived from attending cases of zymotic disease amongst self-supporting labourers. "Do not flinch", he added, "at estimating how many would be dispensed with from York or enabled to transfer their labours to the colonies or to productive industry if all sanitary measures within view were adopted! It will look impartial and be popular at the same time".⁽³⁾ Of the hazards and horrors of the inquiry he gives a glimpse in a letter to the Registrar General. "My vacation has been absorbed in visiting with Mr. Smith and Dr. Playfair the worst parts of some of the worst towns. Dr. Playfair has been knocked up by it and has been seriously ill. Mr. Smith has had a little dysentery: Sir Henry de la Beche was obliged at Bristol to stand up at the end of alleys and vomit while Dr. Playfair was investigating overflowing privies. Sir Henry was obliged to give it up The people received the commissioners very well".⁽⁴⁾ Usually, however, Chadwick remained in London, examining witnesses at

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1. Dr. W.H. Duncan at Liverpool, the Rev. J. Clay at Preston, Thomas Hawkesley at Nottingham, Dr. T. Laycock at York, Dr. P.H. Holland at Chorlton-upon-Medlock.
2. E.C. - Sir Henry de la Beche, 22 December 1843.
3. E.C.-- Dr. Laycock, 6 June 1844.
4. E.C. - Major Graham, 7 December 1843.

Gwydyr House, testing street sweeping machines and jets d'eau, collecting specimens of earthenware pipes from Glasgow and Zurich to compare with the products of the Southwark potters, and arranging experiments to determine the engineering formulae for the construction of scientific water and drainage systems. Over the reports of the Commissioners and other expert correspondents he exercised a watchful censorship, for error crept in by the most unlikely ways. A paper on French cemeteries by W.E. Hickson, the editor of the "Westminster", was quietly discarded after Chadwick had objected to its excessive praise of French municipalities.⁽¹⁾ When the great Robert Stephenson, "who is recognised as the real inventor of the locomotive engine brought forward by his father", submitted a report on water supply, Chadwick condemned it at once for its shocking ignorance of correct principles, and prevailed upon the Commissioners to reject it unanimously.⁽²⁾

By the middle of November 1843 the political members of the Commission had seen and smelt enough of the towns, and were talking of laying their recommendations before the Government. The worthy Slaney, in particular, finding himself with the weapon of a Royal Commission in his hands, was tempted to wield it with too much eagerness. In Chadwick's extended inquiries, and his experiments with earthenware drain pipes and egg-shaped sewers, he could see only a waste of time, and he viewed with impatience the maturation of Chadwick's comprehensive administrative proposals. Chadwick had seen too much already of such precipitancy. He recalled the perpetual irritation at the Poor Law Commission because the Government had withheld the powers for the abolition of the Gilbert Act Unions, and his repeated attempts to replace the other omissions, the district schools, district auditors, and district contracts; the ruining of the Factory Bill of 1833 because of the excision of the strong schooling clauses he had advised; and Lord Normanby's

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1. E.C. - J.H. Burton, 3 February 1844.
2. E.C. → Morpeth, 18 September 1848.

Bills, prepared in ignorance of the evidence in the "Sanitary Report", to make drains run without water. The debate was prolonged, but eventually Chadwick could tell his friend, Professor Owen, with deep satisfaction, that "Mr. Slaney was in a very different state of mind, and talked less of doing not more than what was practical, i.e. doing what in my sense is not practical, doing any good by halves". "Completeness of execution wherever the Crown or the Government does interfere at all is one great point to enforce", he went on, "The certain good and larger popularity from well executed measures and the essential differences of those now proposed from those proposed previously to the issue of the sanitary report and the Commission of inquiry are important topics. I have sustained much injustice by having half measures and the consequent failures imputed to me. In poor law measures I have been placed in the same sort of conflict, as you imagine, one would be if sanitary measures were to be carried out by men who thought that intermittent supplies of water, and separation of the water supply from the drainage, were safe and wise practical courses. I have been stigmatised by such persons as "over hasty", theoretical: visionary apt to over colour...."(1)

To Chadwick's immense relief the "First Report" of the Commission was through the press in July 1844. "Two thirds of that volume will have been written by me, report, circular letters and queries", he told his friends⁽²⁾, and "the continued labour of examining witnesses was becoming very severe".⁽³⁾ However, the octavo volumes looked very well, and he felt satisfied that his trouble with them had been well expended.⁽⁴⁾ The Government apparently considered that this satisfaction should be his only reward, for he received no acknowledgment of his services and no recompense for the additional labour which

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1. E.C. - Professor Richard Owen, 14 December 1844.
2. E.C. - J.H. Burton, 31 July 1844.
3. E.C. - Thomas Hawkesley, 9 July 1844.
4. E.C. - Thomas Hawkesley, 1 September 1844.

had increased his hours of work from six to sixteen. If he had employed the same time in writing for reviews, he complained later to the Duke of Buccleuch, as Cabinet Ministers had been known to do while in office, he would have made more money.⁽¹⁾

The "First Report" was brief, merely outlining in general terms the conclusions suggested by the evidence, and apart from a few striking passages about the state of drainage and water supply in the provincial towns (which have served historians well ever since) it made little impact upon the public consciousness. "In England", Chadwick told Lord Normanby, "the extensive apathy to the evidence of the removeable nature of the immense mass of sickness and mortality may only be taken as evidence of a low moral condition and almost of co-extensive brutality: and yet whilst the appearance of the first report of the Health of Towns Commission passed almost without notice, the whole of the newspapers were occupied with the case of the flogging of a boy by an Irish Magistrate".⁽²⁾ The jolt given by the "Sanitary Report" to the conscience of the ruling classes was not to be repeated. Chadwick had run into the barrier which faced another reformer at the same period. "The House is weary of these narratives of suffering and shame", noted Ashley in his diary in February 1845, "The novelty is past, and the difficulty, the apparent difficulty of a remedy remains; it catches, therefore, at any excuse for inattention, and damns the advocate of the toiling thousands, by courteous indifference".⁽³⁾

The impression, voiced by Normanby in the Lords, was strong that nothing new had been brought out by the inquiry. It was true, Chadwick agreed, that there was little but striking verification in the medical testimony⁽⁴⁾; but the evidence on water supply, the key to all effective sanitary operations, he

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1. E.C. - Duke of Buccleuch, 17 and 19 December 1845. "Nearly two-thirds of these volumes are in my hand writing, for which I am to get only posthumous credit, if at all". (E.C. - Macvey Napier, 12 October 1844. Macvey Napier papers, f. 629).
2. E.C. - Normanby, 17 August 1844.
3. E. Hodder, op. cit., vol. 2, p. 89.
4. E.C. - Southwood Smith, 22 July 1844.

believed --- with some justice --- would revolutionise that branch of engineering, and he counted his examination of Thomas Hawkesley, the engineer of the Trent Water Works, as the most important he had ever taken.⁽¹⁾ Many of the conclusions on technical and administrative matters had in fact been glanced at in the "Sanitary Report"; but these were precisely the parts of the report which had made least impression upon its readers, and where repetition, reinforcement, and a closer discussion were most required. If the main strands of Chadwick's argument are disentangled from the vast mass of the evidence appended to the Commission's "First Report", we can agree with him that the foundations for reform had been laid more deeply and firmly, and that some of his propositions had advanced from the stage of suggestion to that of demonstration.

Replying to the protests of the Sewers Commissioners against the charges in the "Sanitary Report", Chadwick had declared that all the evidence showed that their works "were below the existing science applicable to them. That they were a vast monument of wasteful expenditure and defective execution. And moreover it became a serious duty to charge them as latent causes of disease and death".⁽²⁾ This three-fold indictment he now proved out of the mouths of the Commissioners and their officers. In Richard Kelsey, surveyor to the City Commission, for example, he found a perfect spokesman for their ignorance and complacency.⁽³⁾ Asked if he possessed a plan of his district, he replied triumphantly that he had; he admitted, however, that it did not show the levels, though he kept a private memorandum of this essential information. "Can you tell, on inspecting the map, which way the water falls in all the drains represented?" Chadwick asked him. "I could tell, because I know", was the reply, "but no stranger could tell".⁽⁴⁾

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1. E.C. - Woollett Wilmot, 7 October 1844.
2. "Drafts of communication in answer to Comm. of S.", MS, n.d., probably intended for Sir James Graham.
3. "First Report", vol. 2, pp. 203 - 231.
4. *ibid.*, p. 207.

He confessed indeed that the district might contain some sewers of which he possessed no record.⁽¹⁾ "The maxim of the Commissioners", he declared, "is never to make any sewer so small as that a man cannot get into it easily"⁽²⁾; so that even for courts and alleys a sewer 3' x 2' 2", sometimes 4' x 2' 4", with brickwork 14" thick, was laid down. Sewers of this size, he admitted, presupposed accumulations, which were removed at a contract price of 6/- per yard, the brickwork of the sewer being torn open where no manholes existed. These brickwork caverns, rarely inspected and irregularly cleansed, had sometimes been put to strange uses. In one parish, Kelsey revealed, the beadle had been buried in a sewer. In another a sewer had been surreptitiously used as a burial ground, exploration uncovering two flat tombstones and six or seven coffins.⁽³⁾ House drains, he considered, should not be less than 15" in diameter; for a small house they should be even bigger, as they were more likely to be blocked. Asked his opinion about the possibility of

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1. Cf. this report from Edinburgh: "On inquiry at the proper offices I find that there is no means of discovering what houses have and what have not communication with the common sewers unless a survey were made for the purpose: and further, that not only is there no record of the individual houses connected with the Sewers, but that there is no direct means of knowing what streets are drained by sewers and what are not". (J.H. Burton - E.C., 18 December 1841).
2. "First Report", vol. 2, p. 211.
3. But these vast sewers might have better uses, as Chadwick pointed out to Colonel Rowan of Scotland Yard in April 1848, when the loyal middle class were preparing to deal with a Chartist attempt to seize the metropolis. The Chartists might throw up barricades in the streets, from which it would be difficult to dislodge them. But, suggested Chadwick, a band of two or three hundred sewer men might be sworn in as special constables, to creep unsuspected along the sewers and emerge at manholes in the rear of the startled revolutionaries. (E.C. - Col. Rowan, 8 April 1848). Three months later one of the men engaged on the subterranean survey then being conducted by the Metropolitan Sewers Commission was found to be a confederate in a plot to blow up Parliament and the Government Offices, the explosive to be laid in the sewers, which were five feet high and offered easy means of access to the conspirators. (E.C. - Sir Henry de la Beche, 29 July 1848).

replacing the existing brick drains with pipes four or five inches in diameter, he replied scornfully, "half a brick would stop it"; "in poor houses you can never keep them free from coals, cinders, bottles, broken pots, and all kinds of old rubbish" --- and if a grating were inserted to prevent the entry of such dejecta, it would of course be wrenched away by the feckless tenants.⁽¹⁾ Main streets in the City were cleansed every day, all others two or three times a week; courts and alleys "ought to be cleansed" twice a week, but Kelsey was not certain that this was done. He could only account for the filthy places in his district, he said, by the filthiness of the people.⁽²⁾

It was against this background of ignorance and crude empiricism that Chadwick brought forward his technical experts, Dr. Dyce Guthrie, S.O. Foden, the architect, and John Roe, the surveyor of the Holborn and Finsbury Commission,⁽³⁾ to show that brick sewers costing £2/10/- a yard might be replaced by terra cotta tubes at one-third the cost or by pipes of common clay which were manufactured in Glasgow for no more than 2/- a yard. To put in a cesspool cost about £5, and to clean it £1 a year; yet for £4 a house could be fitted with water-closet, sink, water-pipe and improved house-drains. For an addition of 2½d. a week to their rent the working classes could enjoy the combined benefits of a water-closet and a constant supply of water.⁽⁴⁾

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1. "First Report", vol. 2, p. 223.
2. *ibid.*, p. 220.
3. *ibid.*, pp. 241 - 263 (Dyce Guthrie); pp. 315 - 324 (Foden); pp. 154 - 180 (Roe).
4. "It appears then, from your evidence, that you put down an apparatus of the nature of a water closet, with water-cock and pipe, sink and drain in the house, in a new district, at an expense of £2/5/-, or only 3/- more than a surveyor's fee, for seeing to the erection of a party-wall to a two-story house, in an old district; that at an expense of £4, or not much more than the surveyor's fee for a first-class house in an old district, the public may, in a new district, or a provincial town, defray the expense of the complete

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Without a constant supply of water to every house, however, it was useless to think of water-closets and self-cleansing sewers. Could such a constant supply be provided? To Chadwick at Gwydyr House came the engineers of the London water companies to/this ^{explode} fantastic hypothesis. Thomas Wicksteed, engineer of the East London Waterworks Company,⁽¹⁾ was convinced that it was theoretically impossible to keep water at pressure in all the mains and service pipes at the same time, and that the Company's method of intermittent supplies on alternate days was therefore the only practicable one. Moreover, "if he (the landlord) was to put a separate supply to those houses by a lead pipe, the lead pipe would be there in the evening, but it would be gone in the morning".⁽²⁾ He advised therefore that the poor should continue to draw their supplies from cast-iron stand-cocks, which offered less temptation --- and of which, in his district, there was one to every hundred houses. Wicksteed's company obtained its water from the river Lea; the supplies were not filtered, but the more obvious impurities were removed by passing the water through settling

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(Continued from previous page) apparatus of the nature of a water closet, the sink, and improved house drain, and the proportionate expense of a second-class sewer? --- Unquestionably." (S.O. Foden, *ibid.*, p. 324). John Roe asserted that if house drains were laid down on a general contract, and were made of glazed or tube tile, the result would be a saving of over 50 per cent. (*ibid.*, p. 169). Dr. Dyce Guthrie (*ibid.*, p. 367) put in the following calculation:

Cost of brick-built sewers in the Holborn division:

First Class	£2/10/- per yard	£4,400 per mile
Medium Class	£1/10/- per yard	£2,640 per mile

Cost of tubes of terra cotta or fire-clay, 18" in diameter:

	15/- per yard	£1,520 per mile
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Cost of tubes of common brick clay, 12" in diameter:

	3/- per yard	£246 per mile
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Cost of drain tubes in Glasgow, of common clay: 3" in diameter 6d. per yard, 6" 9d., 9" 1/-, 12" 1/3d., 18" 2/-.

Cost of cast iron pipes, 12" in diameter:

	14/6 per yard	£1,276 per mile
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1. *ibid.*, pp. 11 - 27.

2. *ibid.*, p. 23.

reservoirs; and in fourteen years, he claimed, there had not been six complaints of bad water from the Company's 50,000 tenants. The Southwark Water Company, according to its engineer, Joseph Quick ⁽¹⁾, supplied 18,000 houses, 2,000 of the lower class tenements being served by 250 stand cocks. In this district 5,000 houses with 30,000 inhabitants had no supply at all, and "they depend for their supplies on pumps or such rain-water as they catch". ⁽²⁾ Water carriers were still to be seen in Clapham and Rotherhithe, charging a halfpenny for two pails, though the Company's pipes ran close to the houses; two objections were raised by the landlords to laying on a supply for their tenants, the lack of drains to carry away the waste, and the immediate outlay required for the service pipes.

To controvert the evidence of the London engineers Chadwick brought forward Thomas Hawkesley of Nottingham, who had designed and constructed the Trent Water Works fourteen years before. ⁽³⁾ This company supplied 8,000 houses in Nottingham, with 35,000 inhabitants, and charged no more than a penny a week for an unlimited supply to working class tenements. Hawkesley was as firm as Chadwick that such a service should be commercially remunerative, not a form of charity, and he revealed that, despite its low charges, his company paid 5 per cent. on its capital outlay, and its £50 shares sold at £70 to £73. He rejected with scorn the London engineers' thesis that larger mains would be required for a constant supply, pointing out that in practice he had been using smaller mains and service pipes than was customary. Lead service pipes in his experience were rarely stolen, the task of cutting them being highly inconvenient when they were filled with water at high pressure. Tenants, who had previously been obliged to pay water carriers a farthing a bucket, cheerfully paid the extra penny a week on their rent for an unlimited and constant supply.

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1. "First Report", vol. 2, pp. 114 - 36.

2. *ibid.*, p. 116.

3. *ibid.*, pp. 27 - 97.

Hawkesley foresaw a Utopian future --- streets cleansed by jets; constant water supply, water-closets, and glazed earthenware house-drains in each house at a total cost of less than £5; warm baths in public bath-houses at 3d. a head; even "baths introduced into the houses of labouring men for the use of themselves and families".⁽¹⁾

Chadwick had an instinct for selecting the right experience and the right advisers, and for combining the partial solutions of the practical men into a working whole, which was at once logical in its theoretical foundations and soundly practical in its technical application. He perceived at once that Hawkesley's evidence was complementary to that of the Holborn surveyor, John Roe. Hawkesley showed the way to cheap domestic supplies of water, as Roe had revealed the possibility of cheap and efficient removal of domestic waste and excreta. If the two were combined in a unified system, the solution of the main problems of urban sanitation was in sight. There remained the question of the disposal of the town refuse.

William Thorn, a member of the oldest firm of scavenging contractors in London,⁽²⁾ declared that "the state of prices is such that we should lose money if we disposed of the article". Two years before a contractor had paid the parish authorities in Marylebone £1,850 for the refuse, but the bottom had since dropped out of the market, and in 1844 the parish had been obliged to pay the contractor for his services. Some portions of the refuse paid for the cost of removal; ashes and breeze were in demand for brick-making, "hard core" was used on the

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1. *ibid.*, p. 31. Hawkesley's evidence was supported by Robert Anderton, manager of the Preston Water Works Company, which gave a constant high pressure service to 5,300 houses for an annual charge of 5/6d. per house (*ibid.*, pp. 146 - 151); by the engineer of the Shaws Water Works, Greenock (*ibid.*, pp. 1 - 11); and by William G. Bull, civil engineer of New York, and William Strickland, engineer to the Schuylkill Water Works, Philadelphia. (*ibid.*, pp. 136 - 143).
2. *ibid.*, pp. 369 - 382.

roads, rags were wanted for paper-making, horse-dung and cow-dung were sent out by barge as far as eighty or ninety miles from the capital. But night-soil was almost a complete loss. Cesspools were cleaned out once every twelve or eighteen months, the average contents being five one-horse loads, or five cubic yards. Some of the night-soil was baked and exported to the West Indies; the remainder accumulated in lay-stalls, for which there was increasing difficulty in finding suitable sites.

Now it was precisely in the night-soil, which in London was the least valued portion of the refuse, that Chadwick saw the possibilities of the greatest profits. Captain Vetch ⁽¹⁾, when consulted about the improvement of Leeds, had assured the Town Council that, if his plans were carried out, in ten years the sale of the sewage to local farmers would bring in £10,000 a year. ⁽²⁾ He considered that 5/- a head was a low estimate of the annual value of human excreta, and even believed that in many towns the net profit from the sale of sewage manure would be sufficient to pay for the drainage and water supply. ⁽³⁾ Examples were numerous of the profitable utilisation of sewage as manure. At Ashburton liquid sewage had been applied to the land for the last forty years. ⁽⁴⁾ Three hundred acres near Holyrood Castle were irrigated by the "Foul Burn", into which one-third of the sinks, drains and privies of Edinburgh emptied, and the annual value of the land, which produced four or five crops a year, was estimated to be £15,000 or £20,000. ⁽⁵⁾

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1. *ibid.*, pp. 432 - 443.
2. *ibid.*, p. 439.
3. *ibid.*, p. 442.
4. *ibid.*, p. 407.
5. The "Foul Burn" was one of Chadwick's favourite examples of the obstructive rights acquired illegitimately by private individuals, --- in this instance, by the Earl of Moray, Lord Haddington, and others. Efforts to free the inhabitants of the nuisance at the time of the Edinburgh Police Bills of 1832 and 1834 had been defeated, largely by the efforts of Miller, the Member for Newcastle-under-Lyme, who stood at the corner of the Committee room and begged every member who entered to oppose a clause to rob him of his property. They had no contract with the town, observed Chadwick; they had not been long enough in possession to claim any prescriptive right; yet they demanded £150,000 compensation. (MS fragments, n.d.)

Abroad, irrigation by liquid sewage was employed by the farmers of New Spain, Barbary, Andalusia, and Milan. Reflecting on these examples, Chadwick asked himself, if a water company, giving the excellent service Hawkesley described at so moderate a cost, could return a profit of 5 per cent., what might be expected of an enterprise which undertook not only the water supply but also the removal of the town refuse, and drew additional profit from the sale of sewage manure to the neighbouring agriculturists?

In the minutes of evidence of the "First Report" Chadwick may thus be seen, selecting his witnesses and pointing his questions with his barrister's skill to confront the defenders of the old order with the authoritative denials of men who had themselves originated improvements or had seen them in action. Ready to hand, he shows, in the successful experience of Hawkesley, Roe, Foden, Vetch, Dean, were the makings of a scientific system of municipal engineering, in which the three aspects of urban sanitation, drainage, water supply, and sewage disposal, might be integrated into an organic whole.

It was intended that the "Second Report" should outline the Commissioners' proposals for future legislation. On the 13th December 1844 Chadwick laid before the Duke of Buccleuch the draft of ^aPublic Health Bill⁽¹⁾, together with a lengthy memorandum in which he explained and defended his main recommendations.⁽²⁾ It is in these papers, and not in the Reports of the Commission nor in the Act of 1843, that Chadwick's views on public health policy are most truly reflected; and they call, therefore, for consideration in some detail.

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1. "Health of Towns Improvements. Proposed Outline Clauses of a Bill for the issue of Amended Commissions of Sewers, Drainage, Water Supply, Paving, and Health of Towns Improvements", MS, 13 December 1844.
2. "Health of Towns Improvements. Draft Report of Observations and Recommendations on a Bill for the Drainage, Better Supply of Water, and Improvement by other means of Health of Towns", MS, 13 December 1844.

He begins by examining the suggestion, sponsored by Lord Normanby, that general enabling powers should be conferred upon the existing local authorities. There was one short and conclusive answer to this proposal: the existing local authorities had in general mismanaged all such powers as they did possess. Of the fifty towns examined, the Commissioners were unanimously of the opinion "that in scarcely one place can the drainage or sewerage be pronounced to be complete and good, while in seven it is indifferent, and in 42 decidedly bad as regards the districts inhabited by the poorer classes"⁽¹⁾; as for the supply of water, "only in six instances could the arrangements and the supplies be deemed in any comprehensive sense good; while in thirteen they appear to be indifferent, and in 31 so deficient as to be pronounced bad, and, so far as yet examined, frequently inferior in purity".⁽²⁾ Chadwick went on to indicate four main reasons why municipalities were unfitted for the task of administering public health measures.

In the first place, their geographical areas usually did not include the suburbs, which had been built subsequent to the granting of their charters. It was in the suburbs that the best outfalls for the town drainage were commonly to be found, but any attempt to extend the Corporation's jurisdiction over these new districts would be violently resisted by the suburban ratepayers. Yet "the division of a natural district, either for water supply or drainage, would often present mechanical difficulties sometimes insuperable, and always enormously enhance the expense of improvement".

Secondly, the structure of municipal government was shot through with influences opposed to sanitary reform. Many of the corporate towns were so torn by party feuds that the party in opposition would regard with jealousy the grant to the Corporation of any powers of new expenditure, however properly the trust might happen to be executed. At Hull, for example,

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1. A quotation from the "First Report", vol. 1, p. xv.
2. *ibid.*, p. xviii.

a very beneficial extension of the water supply was fiercely resisted because the opposition were convinced that patronage in the appointments and jobbery in the expenditure, as well as popularity for election purposes, were the real objects of the measure. "The municipalities are generally composed of occupiers and of persons having short interests, and their interest governs their views. It is not stated invidiously, nevertheless it is the fact, that they are not generally of the most educated class (As a result) the interest in one part of a town has been set in violent opposition to the improvement of another, whilst the best-conditioned districts, having majorities in the governing bodies have gained improvements in preference to the poorer and worst-conditioned districts which stood in the greatest need of them." In London the earliest and greatest improvements had been carried out in the West End, outside the jurisdiction of the Corporation; they were the work of private individuals with large and permanent interests; and it was only after the effects began to show themselves in the increased trade of the shops in Regent Street and the West End that the City, in self-defence, adopted similar measures of improvement.

Unfitted by their composition and by the partiality of their interest-begotten views to appreciate the need for complete sanitary measures, the municipalities were equally unfitted by their ignorance to understand the engineering problems involved. "Both in Leeds and at Derby the plans proposed by the engineers were not attempted, though indisputably practical and extremely beneficial, and although it was undoubted that they in a very short time would have been also highly profitable They fell through mainly, as was avowed at Leeds, because such measures were beyond them".⁽¹⁾

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1. "On similar advice, to obtain a survey and a plan from an engineer, given on an application from Leicester, the parties declared at once that the corporation was incompetent to undertake such works, and adopted a petition,
(Continued on next page)

Without exception all the recent Towns Improvements Acts were vitally defective. The Birkenhead Act, for example, "from the habit of not looking beyond the immediate local experience", recognised and propagated all the old evils of working class housing, blind alleys, cellar dwellings, cesspools, and receptacles for decomposing refuse situated at the entrance to the courts.⁽¹⁾

Finally, there was scarcely a town, except those which were too small to afford profit to a separate company, which was not saddled with previous administrative arrangements. Water was supplied, at high prices and to part only of the inhabitants, by a trading company; one mass of houses was imperfectly drained by the Corporation; another mass, in the suburbs, was drained equally imperfectly by another authority created under a Local Act; while an expensive and extremely defective system of cleansing and paving, which extended only to the main streets, was under the control of a road trust. These separate authorities were usually as much in conflict with each other as were the bodies of parochial watchmen in the metropolis before

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(Continued from previous page) praying that the Government would send down a competent engineer. The mayor of Birmingham made a similar public declaration, that the Corporation was ineligible to undertake such work. And at Derby some of the chief persons connected with the town have expressed their conviction that the complete works could only be undertaken by a "specially appointed body". ("Draft Report", sec. 12).

1. 6 & 7 Vict. c. 13 Local. Chadwick had written severely to one of the promoters of the Birkenhead Act: "I shall feel it my duty to ask the attention of the Commissioners of enquiry into the circumstances affecting the health of towns, to the regulations set forth in the sanitary report on Birkenhead, --- in proof of the necessity of some extraneous security other than the builders' own interests, for the protection (it might be said of those very interests) of the health of the population: in other words to ensure that the experience already obtained, as to the causes of disease and the practical means of prevention shall be properly consulted and applied". (E.C. - John Laird, 22 October 1844).

they were superseded by the new police. (1)

"For geological and physical reasons in respect to the operations of drainage, which govern those of cleansing the roads, etc., and other works, you must have special districts for drainage and towns improvement", Chadwick concluded from this survey of the defects of the existing municipal authorities. "If works of drainage for the proper drainage area be attempted to be carried out in sections, you succeed only partially, ---

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1. Chadwick spent a considerable time analysing the Local Acts for Liverpool, the result being given in a foot-note, "Second Report", p. 42: "Table showing want of consolidation and inconsistent powers of various authorities under Local Acts in Liverpool".

Corporation.

1. Health Committee.

Does not include the management of cleansing or sewerage streets, but interferes with authority No. 5 in paving and sewerage courts, and extends for this purpose over the district of Toxteth Park. Does not possess the natural connexion between authorities 2, 5, 6.

2. Cleansing Committee.

Has no connection with sewerage or with watering the streets, and therefore is ineffective by interfering with, and being interfered by, authorities 1, 4, 5, 6.

3. Fire Committee.

Possesses charge over fire police, and yet has no charge over the water, brought in at an immense expense, for the extinction of fire. Is dependent, therefore, upon 4, a distinct and independent authority.

Commissioners of Sewers.

4. Water Department.

Water brought in to the town for extinction of fire and watering the streets; interferes, therefore, with authorities 2 and 3, and, if applied to public fountains, with duties of 1.

5. Sewerage and Paving.

Confined to streets alone, but not extended to courts, and is, therefore, interfered with by authority No. 1. Possesses compulsory powers with regard to main drainage, but not with house-drainage.

Two Water Companies.

6. Both in opposition, --- compelling, from their supposed inefficiency, the introduction of new water (4) for the extinction of fire; and, from the inadequacy of domestic supply, prevents the proper action of sewers, and hence interferes with authorities 1, 2, 3, 5, 7.

Toxteth Park Commissioners.

7. Causes the expense of separate management for various offices which might be comprised under one or more of the previous authorities by an extension of the existing

you risk entire failure, --- and you certainly incur excessive expense.

For economic, political, and social reasons, you must for these special districts have a special administrative machinery, comprehending within that district the whole of the works to be executed".

He proposed in fact to re-furbish the ancient machinery of Crown-appointed Commissions of Sewers, as he had earlier suggested in the "Sanitary Report"⁽¹⁾, giving them wider powers and a new direction, and putting them under the tutelage of a department of the central government, which would guard against improper appointments and ensure the efficient execution of their duties.

"The powers already possessed, and from time to time exercised, by the Crown in relation to the chief work in view, drainage are so extensive, that the new powers hereafter proposed may fairly be proposed as amendments, correctives, safeguards, and as the complement to ensure their more beneficial application It has long been a subject of complaint in respect to the issue of these commissions, that they have been issued on the casual representation of parties interested by an officer, who has no time to inform himself, nor to take securities either as to the works to be executed or the proper exercise of the powers conferred, and those powers are proved to be extremely defective. It has been shown that a very heavy expenditure for defective works has been imposed and maintained by builders, surveyors, and others connected with contractors, the management of these commissions often falling into the hands of small knots of unqualified persons, who contrive to get their names placed on these commissions It is now proposed that the course of legislation for the removal of the evils in question should follow the ancient track by the appointment of special local agencies for the execution

1. See above, p. 111.

of such works, i.e., by the issue of local commissions, with extended powers as to the execution of new works, and the extension and improvement of old works, but with new and efficient security for their better execution".

The nature of that security, and the general character of the central department, Chadwick developed from a consideration of the arrangements he proposed for financing the vast new schemes of public works. Much of the outcry against sanitary measures, he observed, was caused by the method which had been employed in the past to defray the cost of improvements. In Lord Normanby's Bills, and in recent Local Acts, the expense of draining, paving, and improving fell on the "owners", defined as the persons in receipt of the rents and profits; and these "owners" were called upon to make immediate payment of the whole charge for which their property was liable. Chadwick commented:

"It may be laid down as a primary and general practical rule of legislation for permanent improvements, that no one has any immediate money to lay out for any purpose not in the usual course of his habits; and in the poorer districts, where there is the most need of improvement, this is literally so.

It may be further advanced, as a general practical rule, that no persons in the receipt of the rent or profits of houses or lands, have the fee simple of them, or even a clear and unencumbered life-interest in them.

In many town districts the great bulk of the house property is owned by lessees; and the lower the description of property, commonly the greater the state of subdivision, of complexity of the ownership, and the shorter the terms of interest on which it is held. In several large districts in the metropolis, in Manchester and other towns, it is stated that the great bulk of the lower description of house property changes owners or rent receivers within periods as short as ten years. In Liverpool the expenses of draining, paving, and

improving extensive house property fell upon lessees who had only four or five years of their leases unexpired, and these charges for imperfect works amounted in many instances to a confiscation of the remaining property".

Chadwick recommended, therefore, the abandonment as impracticable and impolitic of the common course of legislation, which laid the cost upon the line of owners, leaving it to them to distribute the charge amongst themselves and to make the arrangements for repayment by the occupiers.⁽¹⁾ Instead of this roundabout method, he proposed to proceed at once to the parties immediately benefited, and to lay the charge upon the occupiers in proportion to their terms of enjoyment⁽²⁾; and to ensure that they would pay no more than their fair share for the benefit they received, he suggested that the charge, principal and interest, should be spread over a period of thirty years. This recommendation involved two further proposals --- first, that local authorities should be empowered, with the consent of the central government, to raise loans on the security of the rates, and should execute the works under contract, with all the consequent economies of large-scale business; secondly, that there should be a compulsory rate for drainage purposes, the collection of which should be consolidated with that of the water rates and other local charges.⁽³⁾

In this financial machinery of public loans and compulsory rates Chadwick saw yet another argument against the grant of self-acting powers to local authorities. For it was

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1. "All attempts to give a simple definition of the owner who shall be charged with improvements have failed to prevent great inequalities and injustice" ("Draft Report").
2. "Rule: That every improvement subsequent to the letting of the tenement not expressly set forth or implied at the time the tenement was let, is an addition for which the owner is entitled to charge the occupier an additional rent as for a new or additional benefit enjoyed by him". (ibid.)
3. The first outline of these financial proposals is contained in the "Sanitary Report", pp. 224 - 6. The consolidation of collection was a means of economy on which Chadwick laid great stress: cf. the evidence of Charles Fox, rate collector of Sculcoates, "First Report", vol. 2, p. 340.

not only the interests of the present tenants which must be considered, but also the interests of those who would be occupying the premises in thirty years' time; and there must be some security that the works were of a quality to last so long and be of benefit to these reversioners and absent parties in proportion to the share of the cost which would fall upon them. Chadwick prophesied that, if the distribution of charges were left to the discretion of local authorities, "building speculators would directly or indirectly get possession of Local Boards, and would, in consideration of trading advantages to themselves, promote enormous immediate outlays", to be borne mainly by future occupiers. It would amount to offering dangerous bounties to rash speculations and extravagant jobs at the expense of these unprotected classes.

This consideration, therefore, formed the main ground upon which Chadwick based the supervisory powers of the central department. Before granting to the local authority the privilege of distributing charges, the legislature must take steps to guarantee that the interests of reversioners in the efficiency of the works were adequately safeguarded. Evidence must be previously obtained "by a skilful, trustworthy and responsible person unconnected with the spot, that the works proposed are fitting, and afterwards that they have been properly executed, and that all the requisite securities have been fulfilled". The procedure should be --- first, a survey of the district conducted by the Board of Ordnance; then an examination by one or more competent engineers, who would produce plans, together with estimates of the outlay involved; and finally the preparation of a report, to be distributed in the locality. The objections of owners and occupiers, the claims for compensation by millowners and others whose interests were affected, the question of alternative employment for displaced officers of superseded Improvement Commissions, "a mass of such difficulties may be removed by any judicious

officer, which would render any general and merely self-acting measure impracticable"; while at the same time the demonstration by an accredited engineer of the waste and inefficiency of old works, accompanied by a statement in unanswerable pounds, shillings and pence of the gain to be expected from improvements would secure a favourable local reception for measures of amendment.

After the local examination the next step would be the preparation of a report by a responsible legal officer for the consideration of the Privy Council. The essentially judicial nature of the proceedings --- the object of which was to decide, in the interests of reversioners, whether the works of drainage were of satisfactory quality --- suggested that the Crown should be advised in these cases by a judicial committee of the Privy Council.

"It is apprehended that the judicial character of the proceeding would have many advantages. It would be satisfactory to the owners and rate-payers that every step should be taken, as publicly as may be practicable: as much as possible should be done upon written, accessible, and responsible instructions decided upon in open court. The engineering difficulties would be very early settled, and become subordinate to that which would at times be the paramount trust, --- the legal distribution of the charges, and the protection of reversioners and the pockets of the absent, the determination of the principles, and the settlement of the amounts of compensation".

The local inquiries should be directed by "one responsible properly qualified legal officer, as standing counsel to the Committee of Privy Council". This would have the advantage of being "in the more ancient and accustomed course, of being small, simple, tentative, and easily altered and extended, as circumstances might require, and of being comparatively inexpensive". The alternative of a central

Board Chadwick dismissed out of hand as "troublesome, and for this purpose extremely hazardous, machinery, not easily altered --- expensive, and probably unpopular". A Board of engineers, he ~~considered~~ ^{considered} would be a particularly dangerous expedient. If, as was only too likely, their doctrines were fixed in the present imperfect state, and reflected the views of the London Water Companies and Sewers Commissions, they would inflict upon the country an out-moded system of works. How frequently the cherished opinions of professional judges had been proved wrong in the past! They had derided the first locomotives and steamboats, and dismissed as visionary the proposal to light London with coal gas, and they were now equally sceptical of the new ideas in sanitary engineering. Hence, "whilst such works are in their present progressive state, it is submitted that a Board of Officers of Works might have many of the inconveniences which it may be imagined would arise if a Board of Schoolmasters, with fixed technical opinions, were invested with such powers as those now intrusted to the Privy Council in the distribution of the money for the promotion of education by different sects in different places".

The Privy Council, therefore, should act on the advice of the legal counsel appointed for the purpose, and should direct their commission to persons nominated on his recommendation. To satisfy the demand for an infusion of the representative principle, Chadwick suggested that a proportion of the nominees should be members ex officio, and should be taken from local bodies already elected by the inhabitant householders or ratepayers, such as the mayor and one or two Town Councillors, and the chairman and vice-chairman of the Poor Law Union.

"It need scarcely be pointed out", Chadwick summed up, "that the machinery proposed is the least obnoxious to declamation, as a new measure of centralization; it is in truth, a very considerable qualification and protection of the subject

against an old, a very imperfect, ill-guarded, and oppressive measure of centralization; the statute of sewers --- of which it would be the much required amendment". As his draft clauses reveal, indeed, no wholesale powers of initiation were to be wielded by the central government. Public health measures might be brought to bear upon the locality in two ways. The Privy Council might direct an inquiry to be made on receipt of a petition from the Town Council, or the chairman, vice-chairman, or medical officers of any Union in the district, or from any number of the inhabitants. Failing an appeal from the locality, the Privy Council could take action only if it appeared from authenticated returns that the number of deaths from epidemic, endemic, and contagious diseases, or from diseases of the respiratory organs, had on the average of the previous three years exceeded a certain fraction of the total number of deaths; or that the mean ages at death were below the chances of life given in the Carlisle tables. It was clear that many towns would be able to maintain their freedom from interference by Whitehall on the ground that their bad drains and contaminated water did not kill sufficient numbers to justify the intervention of the Privy Council.

There were other advantages in the procedure, however, which Chadwick hoped would induce local authorities to seek the assistance of the central government. "The expenses of obtaining Drainage and Improvement Acts entail more grievous burthens on the ratepayers of the large towns, and operate as bars to the improvement of the smaller towns and the poorer districts. Thus the expense of laying on water in the town of St. Helens, a small town near Liverpool, was in round numbers £3,000; but it is stated that the expense of obtaining the act to authorise the works was upwards of £1,000. Under the proposed arrangements the expense for thus a work would chiefly be that of an engineer's services during eight or ten days, in examining the spot, and preparing plans, reports, etc., and the

whole might be brought under one-tenth of the amount paid, and the inhabitants not only obtain the benefit of the privilege conceded, but the value of the plans of a man of science skilled in such works, and free from any undue bias, of the usual professional per centage, on the expenditure, as to the character of the works to be recommended. The expenses of obtaining the Corporation Bills, for the supply of water and towns improvements of Liverpool, are set down at £2,600. Under the proposed arrangement probably a month or six weeks of the time of a competent assistant commissioner or engineer would have been expended in the local examination of the town, and preparation of a plan of works, if his attention had been confined to the one measure proposed; but had such an officer been employed, he would undoubtedly have saved the town from a very erroneous and inefficient measure, and a waste of upwards of £50,000. The preparation of a report, and improved plans of supplying water, on the principle of a constant instead of an intermittent supply for the whole town, a principle established by the experience of three (sic) towns in the same county, (Preston, Oldham, Ashton, and Rochdale) would not probably have incurred an expense of more than £2 or £300, including the local publication of the report, and of plans for the satisfaction of the owners and occupiers."

Finally, urged, Chadwick, it must be remembered that the evils to be remedied were in equal force in towns which were not incorporated; they flourished in Scotland; whilst Ireland contained physically the worst conditioned population in the empire. "Now it is an advantage of the flexible procedure proposed, that the plaister may (to use a homely illustration) be cut and fitted to the sore place to which it is applied, that not only the works, but the appropriate staff of local officers, whether one or several, to supervise the execution for the large village, for the small (un)incorporated town, for a town in Scotland, or for a town in the colonies, may be considered and

provided for in the particular case, and especially authorized by the terms of the commission prepared by a local examination. Whereas on any attempt to fit such powers by generally enabling or compulsory Acts on the existing authorities, either great labour must be undertaken to examine each class of the local authorities, and fit the powers to them, or incongruities must be overlooked and proportionate ill working engendered by giving such powers in the wholesale".

If Town Councils were to find no place in Chadwick's administrative scheme, he was less severe on water companies. Reproved for the restrictive practices and wasteful competition of their unregenerate past, they might yet be integrated into the framework of local government. The motive of private profit and the energy of private enterprise, thought Chadwick, should be harnessed to the public interest by contracts between the local Commission and the local water company, which would protect consumers against commercial rapacity and guarantee universal supplies at constant pressure, while giving the public at the same time the benefit of the superior efficiency of capitalist management.

"The course of legislation established as requisite in the cases of the water companies, and of gas companies hereafter, generally appears to be, the resumption for the public of the fee of the indefinite proprietary rights in the available supplies of water to the population of the towns inadvertently conceded by Parliament to private and irresponsible companies; the conversion of those rights into an express public trust, and the substitution of leases or contracts for service, varying with the demand. In principle, the course of legislation proposed is similar to that sanctioned by Parliament in respect to railways. Monopolies of water supply, perfect independence and irresponsibility, as to quantity or quality, could not be sustained as a property, as strict monopolies pressing on the increasing vital wants of the public, without becoming a

thralldom so odious as to endanger other property. It is at the same time proved that, under contracts for service, companies may prepare and carry water at a profit to themselves, and at a cheaper rate to the consumer, than ever has been done, or ever probably would be done by a municipality, not having the same motives to economy of the means of supply".

From conversations with the directors of some of the London water companies, Chadwick was convinced that they would be prepared to accept terms for the extension of their supplies in exchange for legal protection against competitors. The companies would gain by the increase in value of their shares, by the freedom from the hazards of competition, by the public security which would make their shares as valuable as public stock; the public would gain by diminished charges, by improved supplies, and by all the economies of consolidation. The contract should provide not only for the construction but also for the maintenance of the works, so giving the contractors motives for efficient work in the first place. Companies would undertake both maintenance and construction, Chadwick believed, for a guaranteed profit of 6 per cent. --- that is, $1\frac{1}{2}$ to 2 per cent. above the common rate of interest on money borrowed. "Not 6 per cent. additional interest, nor even 10 per cent. additional interest, would fairly insure the ratepayers for the risks of an additional expenditure by any probable local body, even with the proposed securities of a previous examination of their plans of works".

It has been necessary to consider at some length this memorandum by Chadwick, since it reveals strikingly the strength and weakness of his views on public health policy, and indicates the main points around which the sanitary debate was to revolve for the next few years. What was to be the nature of the executive body in the locality and of the controlling body at the centre? These were the two main administrative questions to be settled; and to both questions, in his advice to

Buccleuch, Chadwick gave the wrong answers. His suspicion of local representative bodies issued in the recommendation that public health measures should not be entrusted to the inefficient and party-ridden municipalities, but should devolve upon a body of ad hoc Commissioners, appointed for the most part by the Crown on the basis of their fitness for the work. But who is "the Crown" in this context? A committee of the Privy Council --- who are to act on the advice of a single responsible legal officer. There is little doubt whom Chadwick had in mind for the post, for who but Edwin Chadwick possessed the necessary knowledge, experience, and energy to grapple with the problems presented by this vast new field of administration? The whole broad province of sanitary engineering and sanitary legislation Chadwick had now taken for his own, and, surveying Whitehall and Downing Street, he could see no one else --- certainly no Minister of the Crown --- to whom he was prepared to lease his proprietary rights. Apart from the opportunity it would afford Chadwick to guide and shape public health policy (an argument which stands or falls by Chadwick's estimate of his own indispensability); apart also from the fact that the Privy Council was traditionally charged with the defence of the country against foreign pestilence; there seems little to be said for Chadwick's expressed preference for a Privy Council committee. At the Privy Council Office the clerks were already finding it difficult to run in double harness their customary function of framing orders to fill in the details of legislation, with the novel and quite dissimilar function of inspecting schools and distributing grants-in-aid. As the Treasury Committee, which investigated a few years later conditions in the Government departments, was to conclude, "to bring together under the charge of a single Establishment business of a wholly incongruous character, tends not to efficiency but to confusion".⁽¹⁾ At this "potting shed for

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1. "Reports of Treasury Committee of Inquiry into the Public Offices", 1848 - 53; Report on the Privy Council, 1853, p. 223.

administrative plants"⁽¹⁾, in fact, another shoot was in need of transplanting. The confusion might well have deepened into chaos if Chadwick had entered, with a mass of new and specialised duties, the supervision of engineering inspectors, the scrutiny of applications for mortgages, the drafting of sanitary bye-laws --- and bringing with him also his own decided views on office management, and a personality which never made for smooth co-operation. It should be noted that at no time did Chadwick press for a Government Board on the lines of the Poor Law Commission. A few days before he presented his memorandum he had told Buccleuch, "Col. Colby (of the Board of Ordnance) who has had much plague with Boards ventures ^h as an axiom that for doing business almost the worst individual appointment is better than the best possible Board" I do not go so far but having been the scapegoat of proceedings against which I have remonstrated shall have one day some large revelations on Board management".⁽²⁾ His model was not the "Three Kings", with their unhappy associations of divided authority and frustrated effort, but Kay-Shuttleworth's position of quiet power as secretary to a Privy Council Committee. It is strange that a man who had helped Bentham to write the "Constitutional Code" should not have seen that only by the establishment of a separate State department under a Minister of Health could sanitary measures claim the attention and attain the prestige as objects of government that they deserved. Chadwick had not learned --- and never would learn --- the lesson of the Poor Law Commission, and he continued to deplore the system which entrusted the direction of administration to

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1. K.B. Smellie, "Hundred Years of English Government", p. 90. The Treasury Committee found that the two departments were distinct in object and method; clerks who had gained experience in one were in no respect fitted for service in the other, and there was considerable inconvenience when a man whose official life had been spent in drafting orders believed that he had claims to a vacancy under the Education Committee. (op. cit., pp. 223 - 4).
2. E.C. - Duke of Buccleuch, 2 - 5 December 1844.

the temporary masters of a shifting Parliamentary majority.

The Royal Commission on the Health of Towns was a continuation of the inquest on municipal government opened in 1835; and Chadwick's team of engineers and doctors probed more deeply than the bright young lawyers who had drawn up the indictment of the closed corporations. In Chadwick's view the transference of municipal authority from a Tory oligarchy to a ratepaying democracy of shopkeepers and Dissenters had not made the Town Council in any wise a more fit instrument for government. The investigation had presented him with only too many examples of Town Councils sitting contentedly amidst their filth, exhibiting neither the desire nor the capacity to introduce improvements.⁽¹⁾ Cramped in their areas, destitute of the most important functions of government or sharing them with intrusive bodies of ad hoc commissioners, torn by party strife, and dominated by the petty interests of landlords and shopkeepers, the municipalities faced the problems of a society confusedly emerging from an industrial revolution with the inhibitions of the ratepayer and the confident ignorance of the "practical" man of business. That was the picture as Chadwick saw it. And, indeed, to foresee that the municipalities were destined to become the chosen instrument of the modern State for realising the good life for its citizens demanded in the eighteen-forties not only a strong dose of optimism and a courageous imagination --- both of which Chadwick possessed in ample measure --- but also faith in the democratic process and

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1. "It is undoubtedly true that in many places a great part of the evils complained of arise from the insufficiency of the powers given by law for their removal, but we are unwilling to believe that the imperfect mode, and in some cases the absolute neglect of putting into execution those powers that exist, would be allowed to continue, where efficient laws are in force, if the local authorities had a more precise knowledge of the nature and magnitude of the injuries consequent upon their neglect, and were capable of applying the necessary remedies, the execution of which is too frequently impeded by the apathy of those in authority, the contentions of local parties, or thwarted by the opposition of interested individuals". ("Second Report", vol. 1, pp. 23 - 4).

a sure sense of the direction of social change. Chadwick had no faith whatsoever in political remedies. Parliamentary and municipal reform, he maintained, instead of rooting out corruption had spread it wider and deeper.⁽¹⁾ It had set false aims before government, and enveloped it in an unhealthy atmosphere of personal and party rivalry. "Political liberty, personal freedom, are no doubt great advantages, but to the working man what question of political freedom can be compared with the freedom from the inexorable sentence of confinement to twenty days bed lying sickness instead of five (for that is the difference of sickness, preventible by sanitary measures), premature disability to work, and an inexorable sentence of premature death; exemption from ravages worse than the ravages of war, which sweep away before their fifth year nearly half of those born? Against these the common stock remedies of political agitators afford no relief".⁽²⁾ Or again: "The freedom of political opinion is no doubt a valuable boon, but a sound body is necessary to the sound and free mind necessary for the enjoyment of any opinion whatsoever. The freedom of religious opinion, too is a privilege of inestimable value, but the painful terrors of superstition maintained by a religious slavery can scarcely exceed those which beset the minds prostrated by filth and disease or low physical condition, accompanied as it sooner or later is with immediate causes of terror in the actual infliction of the pains of sickness, and the perpetual spectacle of the actual infliction on others. Abundant provisions, and constant employment and high wages, as means to their attainment, are no doubt primary objects for the manual labourer; but good health is essential to that abundance".⁽³⁾ In Ireland, he declared, "the great agitator" had for years perverted the attention of the peasantry from their own physical condition to questions of political

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1. E.C. - Thomas Hawkesley, 19 September 1844.
2. E.C., MS fragment, n.d.
3. E.C., "Notes on Sanitation", MS, n.d.

sentiment, such as the political disabilities of his own class, so perpetrating "one of the most mischievous political frauds of our day and generation".⁽¹⁾ For the Chartists and the "anarchical fallacies" of their Six Points, he had only suspicion and contempt. The demagogue was no improvement on the borough monger. Corruption for popularity, indeed, he told Sir George Grey, was worse than corruption for money. "Bad though they may be who pay for their seats, yet as a class they are superior to the Metropolitan members who do not; or than the Mials and the Foxes or the representatives of such places as Oldham or Rochdale or Nottingham where Cam Hobhouse ceasing to pay was ousted by Feargus O'Connor, whose corruption was by popularity". Much of the dread of the ballot was "a dread of the loss of aristocratic influence which prevails by gold, and of the gain of the influence which prevails by popularity; unless learning were expressly represented, and with other arrangements, such as the mode of taking the votes for bringing the less excitable portion of the community to bear, I should fear it too".⁽²⁾

On one question, therefore, the memorandum reveals that Chadwick had changed his mind since 1842. In the "Sanitary Report" he had spoken with approval of public management, and had urged that the example of the Manchester Gas Works might be profitably followed in the supply of water. Now, however, though he insisted vigorously that the unchecked individualism of early buccaneering capitalism must cease, he was convinced that only the motive of private gain could ensure efficient and economic service, and that, indeed, "the evidence almost goes so far as to establish this that the worst Company would almost be better than the best corporate municipality".⁽³⁾ This was a very crude over-statement of his position, less an induction from the evidence taken before the Commission than an

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1. MS fragment, n.d.

2. E.C. - Sir George Grey, 14 October 1852.

3. E.C. - J. Hodson, 10 April 1848.

expression of Chadwick's roseate hopes for his Towns Improvement Company.⁽¹⁾ The testimony of his witnesses were, in fact, more balanced on this point than the conclusions he had drawn from them. Thomas Wroe, manager of the Gas Works in Manchester, had shown that they supplied 1,000 cubic feet for less than 6/-, the charge in other towns, where the supply was in the hands of companies, being usually 8/-; and the Gas Works had already returned to the Town a profit of £370,000, which had been spent on the erection of a Town Hall and other improvements.⁽²⁾ Chadwick asked him: "The chief imputed faults of local public management are carelessness in respect to small savings, redundant and overworked establishments of officers appointed and promoted from party or private favouritism, rather than from any proper qualifications, having no interest in anything but the receipt of their salaries with the least trouble, inaptitude to adopt improvements suggested by the progress of science, jobbing in obtaining supplies; in these respects what advantages are possessed by management by towns' officers as compared with joint stock companies?" To this blunderbuss question, Wroe replied sturdily: "In these respects joint stock companies have really no advantages over town management; the joint stock directors, after all, are only tradesmen, who have their own separate business to attend to, and generally they have no scientific knowledge; and joint-stock appointments go as much by favouritism as towns' appointments. A public officer managing such an establishment for a town has always abundance of inspectors".⁽³⁾ On the other hand, however, Thomas Hawkesley, on whose evidence Chadwick placed so much weight, threw his influence on the side of private enterprise. "As against the ordinary municipal management, which is of a very expensive and variable character, and one which never assumes a commercial character, I am quite certain that even in their present shape

1. See next chapter, pp. 220-223.
2. "First Report", vol. 2, p. ~~223~~ 343.
3. *ibid.*, p. 344.

supplies by joint stock companies are better and cheaper. The direction which in companies is thought to require some experience and qualification, is thought in the bodies adverted to to require neither".⁽¹⁾ The brilliant success of Hawkesley's company in Nottingham outshone the few examples of public management which Chadwick discovered in operation at Huddersfield, Brecon, Halifax, Hull, and Bath.⁽²⁾ He was quite convinced, he told Buccleuch, of the "general utter incompetency of the municipal corporations in England to carry out such works I find for example that the corporation of Hull have already expended upwards of £55,000 which may reach £65 or £70,000 for the supply of only 8,000 houses, and giving to them until our evidence appeared only an intermittent supply. Now the Nottingham Company, nearly fourteen years ago, and at the then prices of iron, expended only £32,000 of fixed capital in providing for the constant and more complete supply of exactly the same number of houses. The Nottingham Company your Grace may remember supply the lower class of tenements at 4/4d. per annum or 1d. per week and make a remunerating profit out of it. The Hull Corporation must charge double to pay interest and avoid loss. Their charges are in fact double. There appeared to be as it happened no jobbing on the part of the Corporation, and that it is only such a result as must always be expected where people have not an interest in comparing pecuniary results with pecuniary expenditure in the erection and management of works".⁽³⁾

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1. "First Report", vol. 2, p. 94.
2. At Bath, for example, which Chadwick had previously looked upon as a favourable instance of public management, he found that the Corporation charged 10/- per annum for 40 gallons a day, as compared with the Nottingham charge of 4/4d. ("Second Report", vol. 1, p. 88).
3. E. C. - Duke of Buccleuch, 23 May 1845. "I agree with you entirely that all such works as water and gas ought to be under the control of the public. But I apprehend that they will often be the least so when under the immediate management and direction of corporate municipalities --- of whatsoever party --- as at present constituted. Of all the extravagant and ineffectual works examined, none has been

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There is much to criticise/in which Chadwick has cast his local and central machinery; but in his conception of the proper relationship between the centre and the localities there is much besides that is admirable. In the preliminary inquiry --- the prototype of the modern procedure of local inquiry by inspectors of the Ministry of Health and the Ministry of Town and Country Planning --- he had devised an adaptable instrument of infinite flexibility, which, while paying due respect to local idiosyncrasies, would bring the local authority firmly into line with the policy of the central department. It was to prove its value a few years later at the General Board of Health, in the painless grafting of new functions and powers on to the older machinery of local government. An interesting memorandum, in the form of a set of instructions to an Engineer Inspector, reveals also, however, that Chadwick looked to the local inquiry as a means for planning the future development of the towns.⁽¹⁾ "Everything in the outer appearance of the city attests the individual power of man; nothing the regulating power of society", de Tocqueville had written of Manchester in 1835, "..... Nowhere is apparent the slow and continuous action of government". Chadwick conceived it the task of his young, brisk engineers to shape the formlessness of the eotechnic town into decency, if not beauty, by "the slow and continuous action of government". Having settled with reference to geological fundamentals the lines of the main sewers, the position of the outfalls, the sources of the water supply, and the best direction for the irrigation channels, they were instructed next to consider what arrangements were necessary for the future increase of the population as calculated on the rate of growth

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(Continued from previous page) found to display such egregious waste and mismanagement, as those carried out by corporations. Even where the corporations works have been bona-fide they have been dearer to the ratepayers even than the works of companies as now constituted....." (E.C. - Samuel Holme, 3 April 1845).

1. E.C., "Draught Instructions for an Engineer Officer for a Survey and Report on the most advantageous arrangements for the improvement of the general sanitary condition of the population of ----", n.d., c. 1842 - 3.

indicated by the census figures. Spaces for new building, for public walks and gardens, for children's playgrounds, for cemeteries, were to be noted. The inhabitants should be impressed with the principle that the evil of overcrowding was to be mitigated by suburban dispersal; and the road system should be laid out in anticipation of the traffic to the new suburbs. In every town in the kingdom such a survey would set a target of public works which would provide useful labour for the unemployed for many years to come. Throughout, declared Chadwick, the engineer should proceed as if the entire district belonged to one prudent and well-advised landlord, interested in increasing the agricultural and residential value of the site by introducing all such structural improvements as involved a wise economy and could be justified by the return from the capital expended. There was little in Chadwick's stiff prose to stir the enthusiasm of the statesmen of his day; but behind much dry talk of surveys and sewers and water supplies can be seen some of the earliest imaginative gleams of the town planning movement.⁽¹⁾

The proposal to distribute the cost of new works over a period coincident with the benefit derived from them wears so simple and commonsense an air that its importance may easily be

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1. Writing to Sir James Graham, 22 June 1844, Chadwick urged that all common lands in the vicinity of towns "should be dealt with primarily as parts of sanitary measures for improving or relieving the towns", and should be laid out as housing sites to accommodate the increasing population, gardens and wks, cemeteries, reservoirs and bathing places, and fields for the application of town refuse as manure. Two Bills were then before Parliament, one providing for a central Board of lawyers and agricultural engineers for land drainage, the other a central Board for Commons Enclosures. "I could satisfy the Chancellor of the Exchequer that the two other boards might be dispensed with and all their objects better accomplished by the procedure I propose". (i.e. the local inquiry) (E.C. - Duke of Buccleuch, 17 December 1844). But, "in consequence of Mr. Stanley's impatience", he could not get the Commission to consider the bearing of the two Bills on the sanitary question. (E.C. - Thomas Hawkesley, 9 July 1844).

overlooked. In Chadwick's hands it becomes an argument for the most powerful weapon wielded by the General Board of Health: the scrutiny by the central department of all local improvement schemes, and the loans by which they were to be financed. It has, however, a further significance, which was presently to be exploited to the full by the propaganda of the Health of Towns Association. The bitterest objections to sanitary reform were raised by property owners who feared that drains and water meant heavy additional burdens upon themselves. Thomas Cubitt, the building contractor, spoke for this class when he declared that "the public" were not prepared to go to the extent of putting a water-closet in every house: "I think that if people were obliged to put them, it would be considered a very severe tax upon them".⁽¹⁾ Chadwick's reply was to demonstrate that, if the charge were spread over thirty years, the cost of fitting new house-drains, closets, and water pipes would dwindle to a weekly payment of 1½d., which was within the means of even the poorest tenants, and was considerably cheaper than the cost of the existing privies, cesspools, and stand-cocks. It was good arithmetic and good economics; but it fought a slow battle with the "landlord fallacy" that stinks and damp formed part of the tenant's risk, and the equally powerful ratepayers' fallacy that fever nests were cheaper than public works.

How the Duke of Buccleuch received Chadwick's draft Bill and the accompanying memorandum we have no means of telling,⁽²⁾ but Chadwick records that throughout December and January he was kept busy "endeavouring to stop mischief".⁽³⁾ It is clear,

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1. "First Report", vol. 2, p. 265.
2. On 11 January 1845 Chadwick sent Buccleuch two further memoranda on the main alterations he wished to see in the Report --- (1) a paper showing the necessity of natural areas for drainage, and (2) a paper on the distribution of charges and the securities necessary to prevent jobbing. On 28 January he sent some outline clauses and a further paper on the distribution of charges, which he suggested Buccleuch should lay before the Lord Chancellor.
3. E.C. - T. Bamfield, 26 January 1845.

however, that the Commissioners were not willing to act up to the strength of the arguments he directed at them, and the thirty recommendations into which they expanded the general conclusions of the "First Report" departed in several important respects from the advice contained in the papers he had laid before Buccleuch. Nevertheless, "the main propositions are I expect secured", he told a friend, "but very slenderly supported by reasons".⁽¹⁾ He had silenced Slaney; and he had silenced those "others who think it very unsafe to meddle with commissions of sewers or the 'masses of property invested in water companies'".⁽²⁾

"We therefore recommend", ran the first proposal, "that in all cases the local administrative body appointed for the purpose have the special charge and direction of all the works required for sanitary purposes, but that the Crown possess a general power of supervision".⁽³⁾ Whether the "local administrative body appointed for the purpose" should be the Town Council or an ad hoc body established under royal commission, whether it should be elective or nominated by the Crown, were ^{questions} left open for further debate; and Chadwick's suggestion that the Privy Council should be indicated as the supervisory authority was equally rejected. For the next three years the nature of the local authority and of the controlling department at the centre was to be discussed in Parliament, with Chadwick working continually, in letters and memoranda and personal interviews, for his local Commission of Crown nominees, acting under the guidance of a judicial committee of Council. There was another significant omission. The Report recommended that, upon the representations of the local authority or of a certain number of the inhabitants, the Crown should direct an inquiry into the sanitary condition of any district, and should be empowered to enforce the execution

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1. E.C. - T. Bamfield, 26 January 1845.
2. E.C. - Bishop Blomfield, 16 July 1844.
3. "Second Report", vol. 1, p. 25. The Report was signed on 3 February 1845.

of the law⁽¹⁾; but Chadwick's proposal that the inquiry should be conducted automatically on the evidence of the excessive mortality as shown in the Registrar General's returns, contemplated the gift of more aggressive powers to the central government than the Commission were prepared to advise. Similarly they found no place for the flexible, powerful instrument of the local inquiry. A plan and survey must precede any scheme for works of town drainage⁽²⁾; the Crown should be empowered to define and enlarge from time to time the area for drainage included within the jurisdiction of the local authority --- these principles were recognised, as they must be in the face of the overwhelming technical evidence. But the local inquiry by a Government inspector, with the scope and intention that Chadwick would have given it, reached beyond this, fumbling towards a conscious perception of social purpose which a Royal Commission of 1845 could not but regard as "unsafe". Even more disappointing to Chadwick's hopes was the casual mention of the Officer of Health. Almost as an after-thought the twenty-ninth recommendation proposed that the local administrative body should have the power to appoint, subject to

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1. Fifth Recommendation, "Second Report", vol. 1, p. 39.
2. Second Recommendation, *ibid.*, p. 29. On 13 May 1844 the Commission had considered evidence "showing the importance of an efficient and complete survey of Towns, with contour lines laid down at equal vertical distances, and proper bench marks, so that the relative altitudes may be found, for Sewerage, drainage, sanitary and other purposes". They concluded that such a survey was an "important preliminary", and went on to consider estimates furnished by the Board of Ordnance that plans on a scale of 5 feet to the mile could be furnished for 1/0¹/₂d. per acre for a town of 100,000, provided that the additions required were inserted at the time the surveys were being carried out by the Ordnance. They thereupon resolved: "With the view of saving the additional expense, which must be incurred for future surveys, if the present opportunity be lost, of employing for these purposes the practised Corps of Engineers and Surveyors now acting under the direction of the Board of Ordnance, this Board is desirous of expressing to H.M.'s Government an earnest hope, that steps will be taken immediately to enable the Surveying Department of the Board of Ordnance to make the necessary arrangements for promoting this service". (MS Minutes, M.H.7).

the approval of the Crown, a properly qualified medical officer to inspect and report upon the sanitary condition of the district.⁽¹⁾ A few lines dealt with the functions of an official to whose importance Chadwick had devoted eighteen months of agitation and thousands of words of argument.

On the other main points Chadwick carried the Commission with him. The local authority should have wider powers in sanitary matters than had hitherto been granted either under Local Acts or by the Statute of Sewers. It should be responsible for the paving of all streets, courts, and alleys, and for the construction not only of the sewers but also of the house drains.⁽²⁾ It should be invested with the rights to all the dust, ashes and street refuse.⁽³⁾ It should have powers, subject to approval, to buy out mill-owners and others whose property rights were an obstruction to proper drainage⁽⁴⁾, and to purchase property for the purpose of opening thoroughfares, improving ventilation, and increasing the general convenience of traffic.⁽⁵⁾ But of the greatest importance were the resolutions on water supply. The Commission recommended that it be "rendered imperative" on the local administrative body to procure a supply of water in sufficient quantity not only for the domestic needs of the inhabitants, but also for cleansing the streets, scouring the sewers and drains, and extinguishing fires; that, with this end in view, "where any independent body has the management of the supply of water, it be liable to comply with the demand of the local administrative body on equitable terms; and that, further, the local administrative body be empowered to purchase the interest in water-works, subject to the control of the Crown, wherever the proprietors are willing to dispose of them".⁽⁶⁾ "We further recommend",

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1. "Second Report", vol. 1, p. 122.
2. Eighth and Twelve Recommendations, *ibid.*, pp. 52, 65.
3. Thirteenth Recommendation, *ibid.*, p. 72.
4. Seventh Recommendation, *ibid.*, p. 44.
5. Twenty-Second Recommendation, p. 107.
6. Seventeenth and Eighteenth Recommendations, pp. 95, 99.

the Commissioners continued, "that on the establishment of new Companies it be made a condition, that the local administrative body be enabled to purchase the works after the lapse of a certain number of years, upon certain terms, and upon a rate of interest to be fixed; and that, with a view to economy, competition between Water Companies be discouraged as far as practicable". The three recommendations which followed made it clear that the service should be extended to all dwelling-houses, and that the supply in all cases should be constant and at as high a pressure as circumstances permitted.⁽¹⁾ Unqualified approval was given to Chadwick's proposal that the water works should be executed, maintained, and kept in good repair by public companies, "as lessees or contractors for terms of years, with liberty of redemption by the public upon terms previously settled".⁽²⁾ In phrases which echoed Chadwick's memorandum to Buccleuch the Report declared that companies would consider a return of 6 per cent. an adequate inducement, this being 1 to 1½ per cent. above the usual market rate for such investments. "An addition of 1½ per cent., for which a company would often undertake the maintenance and execution of such work, would be cheap, as compared with the risk of mismanagement by local boards, composed of persons having no professional skill, and liable to be misled as to the materials and magnitude of the proposed works, as well as to the numbers of officers requisite to maintain them. It might be difficult to ensure that a local body should be so constituted as to give the same constant attention to economy in the expenditure of other people's money that contractors would do in the expenditure and management of their own".⁽³⁾

The financial machinery outlined by the Commission was also substantially that proposed by Chadwick. Loans for

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1. Nineteenth, Twentieth, and Twenty-first Recommendations, "Second Report", vol. 1, pp. 100, 101, 103.
2. *ibid.*, p. 104.
3. *ibid.*, p. 104.

constructing public works might be raised by the local administrative body on the security of the rates, the approval of the Crown being first obtained. The expense of the works would then be charged upon the properties benefited, "to be levied by a special rate upon the occupiers, and recovered with interest by annual instalments within a certain number of years?" (1)

With the publication of the Reports of the Health of Towns Commission, the second phase of the public health movement was concluded. The first ^{phase} ~~task~~, to expose the evil, had been the primary task of the "Sanitary Report". That report had also contained a sketch of Chadwick's ideas on the course legislation should take. But it was the revelations, not the recommendations, of the "Sanitary Report", which had attracted attention. Now the technical and administrative remedies had been explored by an authoritative body of Commissioners, whose advice came with more weight than that of a single civil servant of equivocal reputation. The third phase, to translate those recommendations into legislation, was now opened.

CHAPTER 6.SANITARY PROFITS AND PROPAGANDA.

Throughout these busy months of 1843 and 1844, while Chadwick had borne at Gwydyr House the main burden of the Health of Towns investigation, two further anxieties had weighed upon him. First was the behaviour of the Marquis of Normanby. As Lord Lieutenant in Ireland Normanby had antagonised the Anglo-Irish community by his friendship with Catholics and his clemency in political cases, thus revealing that beneath a somewhat flippant and flamboyant exterior he concealed an unexpected strength of principle. As Home Secretary he had been converted to the cause of sanitary reform in the backstreets of Whitechapel; with the best of intentions he had sponsored a set of remedial measures which Chadwick, from a fuller knowledge, could only adjudge as incomplete and ill-designed; and now from the opposition benches he directed a jealous eye upon Sir James Graham's leisurely handling of public health questions. At the beginning of the 1844 session Lord Normanby rose to inquire what the Tories had done with his three sanitary Bills. When the Whig Government fell, Graham had promised to take the Drainage Bill under his own special care; nothing more had been heard of it. After an unaccountable delay of twelve months, Graham had appointed a Commission of Inquiry, though Chadwick's Report of 1842 proved the necessity for immediate legislation, and "the result of its perusal must be to convince any one that more information was not what was required upon the subject". The remedies were simple enough. "Centralization" was not necessary; it would have been sufficient as in his own Bills, to confer more powers upon existing local authorities. (1) In May Normanby resumed his attack, presenting

a petition from a public meeting of 3,000 Edinburgh working men, the first petition on such a subject that had ever been received from the lower classes. Four years had passed since the need for a general measure had been considered, said Normanby, two years since the "Sanitary Report" had appeared, and "another year was elapsing without anything being done".⁽¹⁾

Chadwick resented the imputation that the months which had been devoted to maturing his technical and administrative plans for the Health of Towns Commission constituted a quite unjustified delay. To avoid superficial legislation, time was well spent in designing measures, and, what was equally important, in cultivating opinion for their reception. As he told R.A. Slaney, who shared Normanby's impatience, "the cause is progressing, the evidence is telling, and in due time a fullness of opinion will be manifested to carry the measures which can only be carried with the strength of a strong opinion. What I am most afraid of is separate and ineffectual measures".

(2) In the virtuous indignation of a Minister out of office with the tardiness of his rivals in power, Chadwick saw a further danger --- that sanitary measures might be dragged into the arena of party politics, where they would lose the cool detachment of a scientific investigation in the heated atmosphere of a faction fight; and where, moreover, they were likely to escape from his control. Thus, he wrote to James Simpson, who at his suggestion had drawn up the petition from the Edinburgh workers which Normanby presented in the Lords:⁽³⁾

"I should have deprecated the giving the proposed petition to Lord Normanby or doing anything which would give the proceeding a party complexion as I fear that will do. The fact is Lord Normanby's measures against which Dr. Southwood Smith and others were strongly remonstrant would, if they could have been carried

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1. Hansard, vol. 74, pp. 541 - 547, 2 May 1844.
2. E.C. - R.A. Slaney, 23 November 1844.
3. In a letter of 25 December 1843 Chadwick had suggested that Simpson should give a lecture to the workers of Edinburgh, and draft a petition for their signature.

out have spread bad drains throughout the country at an enormous expense, and not have mitigated and in all probability have aggravated the evils intended to be remedied. He stopped all proceedings in the getting up of local sanitary reports and under his influence the sanitary report itself was stopped and never probably would have appeared but for his removal from power. Now that it has appeared he is very complimentary. Still however the objection to such a presentation is its party complexion. Why could not Lord Dunfermline who may be said to be the natural representative of Edinburgh attend and present the petition?"(1)

In a long and effective speech Normanby closed his 1844 campaign on 26th July with an address to the Crown, hoping that in the coming session the specific attention of Parliament would be called to the sanitary question. There was much of value in the "First Report" of the Health of Towns Commission, which had just appeared, but "I think it is overloaded with much as to cause and extent which was unnecessary, except for new men, who if they required this information, should not have been appointed on this Commission This strikes me as one of those subjects on which there has already been too much consideration and too little action". In the past few days he had revisited the eastern districts of London, and had come away with the impression that no such misery existed in any other civilised country. He warned the House that there was danger

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1. E.C. - James Simpson, 25 April 1844. To Normanby on 17 August 1844 he wrote: "Pray accept my thanks for the kind expression of your approval of the sanitary report, which is the more gratifying at this time when notwithstanding I can prove that everything of a substantially popular character that has issued from the Poor Law Commission has been written by myself, I am charged with habitually writing "hastily and harshly" and having made the whole law unpopular, the fact being that of all the papers attacked in the House of Commons (I think unjustly) only one happened to have been written by myself, the others having been written by gentlemen who ride away with the credit of having "mitigated the severity of the law"....."

in further delay; "the sick bed is the place in which there is most time to brood over neglect, or to feel gratitude for sympathy".⁽¹⁾ The Duke of Buccleuch, armed with a memorandum from Chadwick ⁽²⁾, had no difficulty in demonstrating that when they were in office the Whigs had been as dilatory as the Tories, and he suggested that a large part of Normanby's enthusiasm for sanitary reform sprang from a desire to score off the Government.

Chadwick's second great anxiety at this period was the apathy of the public at large on the sanitary question. "I am crying out Pestilence! and for the relief of the masses", he wrote to Thomas Carlyle, "but can get no one to hear of means which will affect the pockets of small owners in small corporations who have votes for the election of members of parliament and who set up the cry of self government, as against any regulations which may lead to immediate expenditure for putting in better condition the houses for which they exact exorbitant rents".⁽³⁾ In particular, he was keenly disappointed with the reception of his Report on Interments.

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1. Hansard, vol. 76, pp. 1460 - 1480, 26 July 1844.
2. "Confidential. Memoranda of answers to the imputations of blame in respect to alleged delay to adopt sanitary measures", MS, 13 July 1844. He also wrote to the Bishop of London (16 July 1844), urging him to "do further good by speaking upon the subject by urging the adoption of the practical conclusions which science has developed: taking the whole subject out of the hands of local ignorance and prejudice (on which see the evidence of Mr. Butler Williams and his exposition of the consequences of both in the rejection of Sir Christopher Wren's plan), not sacrificing water companies, but not handing over the population to them as monopolies and sources of future profits and deprecating the obtrusion of party feelings into the consideration of remedies".
3. E.C. - Thomas Carlyle, 20 June 1844. In an attempt to enlist another powerful ally, he enclosed some of the evidence on ventilation in a letter to Charles Dickens, "for the value of its impression on yourself in getting you to attend to the means of ensuring fresh air in your own rooms and the public importance of keeping yourself in good health and spirits". (21 June 1844).

While he was writing it, feeling had risen to a pitch of healthy indignation; the Officer of Health, the most important proposition, had been welcomed by all the clergy he had met; "and yet soon after the appearance of the report that which had previously been a storm, almost, of agitation subsided".⁽¹⁾

In a stream of letters in December 1843 and January 1844 Chadwick had urged his friends --- Dr. Holland at Manchester, Dr. Laycock at York, James Simpson in Edinburgh, Southwood Smith in London --- to get petitions signed by the working men in all large factories. If Scotland did not agitate, he warned his Scottish friends, Scotland would go without the Officer of Health, as it had gone without the Vaccination Acts⁽²⁾; while Dr. Laycock was exhorted to sound the alarm in the "Lancet" against the practice of leaving the cause of death to be verified by the present registrars instead of by a qualified medical practitioner.⁽³⁾ "I can get petitions pretty smartly poured in from Lancashire", Lyon Playfair had promised, adding that Bury was about to send a memorial calling for Officers of Health, and he would see that Preston and Ashton did the same.⁽⁴⁾ But six months later Chadwick had to confess to Dr. Holland, "I have heard of two or three petitions, your own is the only one I have seen".⁽⁵⁾

"I must own my disgust at the carelessness and selfishness of our public men", he confided to a German economist, "An excess of selfishness or of what Bentham calls the "self regarding virtues" without any compensating power of the "extra regarding virtues" is perhaps characteristic of our people. It is however to this excess, to strong stomachs and appetites that our manufacturing and commercial energy is to be ascribed".⁽⁶⁾ The problem was that if the poor were to stop

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1. E.C. - Dr. P.H. Holland, 3 August 1844.
2. E.C. - J.H. Burton, 7 December 1843.
3. E.C. - Dr. T. Laycock, 13 January 1844.
4. Lyon Playfair - E.C., 15 January 1844.
5. E.C. - Dr. P.H. Holland, 3 August 1844.
6. E.C. - F. Garnier, 19 September 1844.

using the streets as middens and to cease dipping their water from wells and ditches, hard-headed business men in the Commons --- fully endowed with the "self-regarding virtues" and the un-self-conscious possessors of those "strong stomachs and appetites" --- had first to be convinced that they were not being stampeded into rash and expensive action by the exaggerations of cranks and sentimentalists. Gentlemen, walking round their mills or their estates, had spoken to sturdy workmen, who had lived half a century and raised a numerous progeny in districts which were now (surely extravagantly) described as "fever nests". They felt it was being overdone, this danger from stinks and the propinquity of filth. After all, many themselves lived in houses of fashionable but insanitary design, with cesspool odours rising dankly from the servants' basements, and crawling nameless things in the water. At the Westminster School, where some educated their sons, cesspools were strategically sited on either side of the entrance to the dormitory. The drains beneath the very building in which they sat, deliberating the welfare of their humbler countrymen, were so bad that a daring surveyor, who had once ventured into them, had declared that it was a relief to get back into the public sewer. So, only too often, Chadwick's political friends listened to him and seemed impressed; they went away vowing that something must and should be done; but once they were beyond the range of that earnest and importunate eye, the warning lost its urgency, and the firm outlines of their resolve softened into polite generalities of goodwill. His keenest arguments were turned by the tough, intertwined fibre of the opposition --- the inertia of the localities, "the laissez faire of evil people"⁽¹⁾, the indifference of Ministers, the ignorance and complacency of powerful men about the uncleanness of the towns.

Hence, in May 1844, we find Chadwick writing to Lord

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1. E.C. - Rev. Theobald Matthew, 26 April 1845.

Ashley:

"There is certainly a very large class of questions affecting the condition of the labouring classes on which external aid will be of much service if it be powerful and not merely a small buzz that goes on unheeded. There are many small interests adverse to the condition of the labouring classes that might by such aid be usefully kept in check by the representations of a body that would be properly attended to if well directed

Your Lordship has seen how frequently interested parties are seated at Boards of Guardians, who are ready to stop anything which may lead to expenditure for the proper repair of the dwellings of the labouring classes.

Where measures of drainage are proposed, and the works carried out by Commissioners of Sewers are found to be defective a cry is raised nothing must be done for fear of offending the Commissioners, and the active Commissioners in several instances are found to be precisely the same sort of persons as those of whom you have heard as Guardians.

When additional supplies of water are called for, for the salubrity and cleanliness of the dwellings of the working class population one cry raised is "Oh the interest of the companies is too powerful to be touched".

An associated voice should surely be raised on the other side". (1)

What was needed was some hearty and persistent campaigning, with public meetings to pass unanimous resolutions, lectures and pamphlets and letters to the "Times", and deputations to the Home Secretary headed by noble well-wishers to convince Ministers that, if only for their own peace of mind, something must be done. But a Civil Servant could hardly appear as the leader of a movement to bring the external pressure of opinion to bear upon Her Majesty's Government; and,

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1. E.C. - Lord Ashley, 11 May 1844.

even if he had not been disqualified by reason of his office, this was work for which he was constitutionally unfitted. When James Simpson, in an address to a meeting of Edinburgh workmen, told them that Edwin Chadwick had counselled the labouring classes to join in petitions to the authorities, he was annoyed at this indiscreet mention of his name in connection with a public agitation.⁽¹⁾ He preferred to exert his influence from the official anonymity of Somerset House. Chadwick, indeed, was no platform agitator. In private conversation he could bring to bear his vast stores of information, his close argument, his intimacy with detail, the authority of his personal knowledge, which caused men to listen to him with respect. But a public speaker required other qualities besides a thorough acquaintance with his subject, qualities which, as his unsuccessful Parliamentary candidatures in later life showed conclusively, Chadwick conspicuously lacked. His public utterances were lame and dull, tied down to notes, bristling with statistical minutiae, and sounding like extracts from one of his own blue books.

So the formation of a "Health of Towns Association" was left to other men, to Ashley, Normanby, Ebrington, and above all to Dr. Southwood Smith, who had revealed a flair for propaganda in the illustrations he had drawn for the Report of the Children's Employment Commission.⁽²⁾ When, in December 1844, Chadwick heard that Southwood Smith was organising a meeting at Exeter Hall, he expressed his hearty approval; but he wrote warningly to the Doctor, "I must beg of you to be careful not to mix me up with the meeting. It will do no good and may hinder much my power of being useful".⁽³⁾

The meeting, which took place on 11th December 1844, was presided over by Lord Normanby; and it may be supposed that not

1. E.C. - J. Simpson, 3 February 1844.
2. C.L. Lewes, "Dr. Southwood Smith", p. 73.
3. E.C. - Southwood Smith, 9 December 1844.

the least of the benefits Chadwick expected from the campaign was that it diverted his Lordship's energies into the safer channels of a non-political agitation. He had visited the huts of hundreds of negro slaves in the West Indies and the cabins of Irish cottiers, he told his audience, but "he would rather pass his life in any one of the first, or in most of the last, than he would inhabit one of those dens or cellars too often used as dwellings of the industrious poor of this country". Dismissing the Health of Towns Commission as "but a bad substitute for action", he hoped that "they would separate this day with a firm determination to do all that in them lay to prevent the seasons again revolving still to find so dreadful a contrast existing between an increasing national prosperity and a deepening misery of the masses".⁽¹⁾ As a result of the meeting a Health of Towns Association was founded, with Southwood Smith and Professor W.A. Guy as secretaries; and in the following months branches were established in Edinburgh, Liverpool, Manchester, York, Halifax, Derby, Bath, Rugby, Marlborough, Walsall, Plymouth, and Worcester.⁽²⁾

In the next few years the Association, in lectures and pamphlets and petitions, hammered away at Southwood Smith's proposition that "the heaviest municipal tax is the fever tax". Its lecturers, the doctors W.A. Guy, R.D. Grainger, J. Toynbee, the lawyer James Simpson, the Rev. C. Girdlestone, and Lord Ebrington, instructed audiences of both the working and the middle classes in the elementary principles of ventilation, drainage, and civic and domestic cleanliness.⁽³⁾ In Liverpool

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1. "Abstract of Proceedings of Public Meeting at Exeter Hall, December 11 1844" (pamphlet), pp. 12, 5, 13.
2. "Health of Towns Association: Report February 24 1847" (pamphlet), pp. 7, 9.
3. Under the title, "Unhealthiness of Towns, its Causes and Remedies", for example, lectures were given by W.A. Guy at Crosby Hall, Bishopsgate Street (1845), by R.D. Grainger at the Royal Institution, Liverpool, and the Athenaeum, Manchester (1845), and by Viscount Ebrington at the Mechanics' Institute, Plymouth (1846).

a "Health of Towns Advocate" was started by Dr. John Sutherland, 1,500 copies of the first number being distributed gratuitously.

(1) In January 1847, on the eve of the introduction of Lord Morpeth's first Health of Towns Bill, the Metropolitan Association began the publication of a "Weekly Sheet of Facts and Figures". (2) Joseph Toynbee organised in London an ancillary "Metropolitan Working Classes' Association for Improving the Public Health", which adopted the motto, "We can be useful no longer than we are well"; (3) the example was followed at Newcastle and Gateshead where a "Working Men's Association", which included thirty "foremen and other influential workers", was formed in friendly alliance with the local Sanitary Association. (4) In many other towns the working classes, under middle class guidance, set up associations, which were prolific in advice to their fellow workers and in memorials to the Government. (5) But not everywhere was there this docile acceptance of middle class tutorship; and Chadwick heard that at Glasgow "some noisy, brawling, turbulent Chartists had got mixed up with the agitation", and that "their way of doing business had disgusted the more discreet". (6)

It was all a bit vulgar and demagogic, thought some of Chadwick's friends. He was rather apologetic himself. "I confess it seems to me in respect to outdoor agitation in this subject that needs must", he told the Bishop of London, "where the opposing interests are so strong as they are, of paving boards and local trusts for cleansing, and so influential with

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1. Dated 1 September 1845.
2. "Health of Towns Association: Report February 24 1847", p. 10.
3. "Metropolitan Working Classes' Association for Improving the Public Health" (pamphlet), 1847.
4. "First Annual Report of the Newcastle and Gateshead Sanitary Association", 1848, pp. 14 - 15.
5. The Wigan Working Classes' Public Health Association, for example, published a pamphlet "On the Pecuniary Economy of Sanitary Improvements, as applicable to the Manufacturing Districts", 1849.
6. Thomas Beggs - E.C., 11 April 1846.

Members of Parliament".⁽¹⁾ But though Chadwick refused to have his name connected openly with the Association, he took full advantage of this powerful instrument of propaganda which lay so ready to his hand, and, by a kind of ventriloquism, its publications incorporated the memoranda he supplied to them, and its deputations spoke arguments he had suggested. Thus, on the 3rd November 1846, he sent Ashley a review of progress since 1837, together with the mortality bill for the quarter, which showed some 15,000 deaths above the average, proving that "if we are idle death is not". "If in the union workhouses, in our prisons", he went on, "such epidemics or such increases of mortality were to occur as occur without inquiry or care in closely crowded courts and alleys, investigations would be properly instituted with the perfect certainty that some one would as a result have to be dismissed for the neglect".⁽²⁾ Ashley replied that the paper was "singularly important". "I made use of it today at a meeting of the "Health of Towns Association", which I hope may at last produce some movement on the part of the Government. It is almost the boldest document ever published by a subordinate department".⁽³⁾

It was, taking the country as a whole, a sprawling, loosely-knit campaign, much less a pitched battle fought to a general's plan than an affair of local skirmishes under guerrilla leaders. In the years of the cholera especially, little agitations, auxiliary to the national movement though often quite independent in their origin and development, were ignited in many places by the energy of some public-spirited individual or group, to blaze fiercely for a few months or a year or two, perhaps, and then to flicker out as the enthusiasm or the wholesome fear departed. In 1849, for instance, the Christian Socialists were busy in the slums of Bermondsey, and had a wild scheme for waylaying the Prince Consort with a

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1. E.C. - Bishop Blomfield, 18 November 1847.
2. E.C. - Lord Ashley, 3 November 1846.
3. Lord Ashley - E.C., 6 November 1846.

memorial against the sanitary condition of the district⁽¹⁾; Chadwick seems to have known nothing of their activity --- or, it may be, he studiously ignored "Parson Lot" and his Chartist friends. There must have been many enlightened clergymen, like Charles Kingsley, who asked their parishioners "Who Causes Pestilence?", and whose sermons attacked "the Deus ex Machina theory of judgments and visitations".⁽²⁾ There were even more sturdy doctors like Tom Thurnall, pitting their science and blunt common-sense against the dirt and prejudice which surrounded them, devoted allies of Chadwick and the General Board of Health against "that "local government", which signifies, in plain English, the leaving the few to destroy themselves and the many, by the unchecked exercise of the virtues of pride and ignorance, stupidity and stinginess".⁽³⁾ As a propagandist movement, however, the public health agitation did not approach the power of the Anti-Corn Law League. Middle class opinion never organised itself so formidably behind Ashley and Normanby and Southwood Smith as it organised itself behind Cobden and Bright, and the "Weekly Sheet of Facts and Figures" never exerted the influence of the "Anti-Bread-Tax Circular". The Anti-Corn Law League set before the public a single, easily comprehended aim, the repeal of a set of laws which possessed the ideal quality for the propagandists' purposes that they could be shown to be taxes on the people's food. The Health of Towns Association faced a complex of problems, often of a technical nature, about whose solution there was frequently a division of opinion even in their own ranks. Both professed to be dealing with the same disease, the "Condition of England Question"; but the Leaguers prescribed a specific, while the sanitarians could recommend only a prolonged and exacting course of therapeutics. The extraordinary success of Cobden and

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1. G. Kendall, "Charles Kingsley and His Ideas", p. 76.
2. *ibid.*, pp. 75, 77. "Who causes Pestilence?" was the title of a series of sermons delivered by Kingsley at the end of 1848.
3. C. Kingsley, "Two Years Ago" (3rd Ed., 1860), p. 213.

Bright was won because they combined the appeal ad misericordiam of the farm labourer's "I be protected and I be starving" with a cogent economic exposition that Repeal would bring increased trade, higher wages, and even a better market for the farmer. The weapons of the Anti-Corn Law League, though they were sharpened and given their cutting edge by the misery of the lower classes, were forged out of the solid core of middle class interests. But was there any profit in sanitation? Maybe there was, if you cared to go into the figures of Chadwick's Towns Improvement Company, or if you accepted his thesis that the labourer, as much as any productive machinery, repaid care and money spent. But how could sewers compete with railways as fields for investment? Projects for bringing drains and water into the homes of the people were looked upon as too "philanthropic", "humanitarian", and "patriotic" to be good business. The capitalist contributed to schemes for improving the condition of the labouring classes in much the same spirit as he put money on the plate at church, expecting to draw his return not in hard cash but in the ~~transcendental~~ ^{transcendental} currency of Butler's "Musical Banks".

It was this feeling that Chadwick had set himself to combat since the earliest of his social investigations. Nothing disgusted him more than the attitude of those who looked complacently on the poor as objects of charity, and who found an easy discharge from the labour and responsibility of seeking a solution to the problem of human misery by means which sapped the independence of the worker. He believed that "the great mass of charities which have for their object the distribution of the means of maintenance create a large proportion of the misery which they are intended to relieve and cannot relieve all which they create".⁽¹⁾ It might almost be said, he thought, that if the trustee of a fund for the distribution of alms ate and drank the money himself, or if the man appointed to

administer a charity for the sustenance of foundlings kept a mistress instead with the proceeds, they would have performed a work of public benefit; the corruption being confined to one instead of being diffused amongst a multitude. Moreover, charity of this kind was directed only towards the visible and pitiful effects, and failed to come to grips with the physical causes which produced them. Lady Bountiful was well meaning but muddle-headed; she was touched by the sight of the sick labourer, lying untended in his damp, cold room, surrounded by the circle of his pale, ill-fed children; but she sent him medicines, blankets, and fuel, instead of removing by drainage the dampness and pestilential miasma which caused the disease, and also money and food, instead of eliminating the depressing factors in his environment which led him to spend at the beershop the wages which would have sufficed to feed and clothe his family. She would have done better to have followed the example of the benevolent lady of St. Margaret's parish, who, instead of distributing alms amongst her tenants, spent a hundred pounds on the drainage of their houses. "This was the greatest and most comprehensive charity, a dry house instead of a damp one was better than the extra fuel and blankets to ward off the effects of the damp, the removal of the offensive cesspools and the filth which are the causes of the disease was surely better than the medicine the expensive and doubtful palliatives of disease, a cleanly and healthy and industrious and independent tenantry better than one which is filthy and squalid, and weakly and exciting compassion from its abject misery".⁽¹⁾

Chadwick regarded mistrustfully, therefore, the activity of those whom the world called "philanthropists". --- Dr. Southwood Smith, for example, "who is a man of benevolence merely and who has mismanaged the Sanatorium".⁽²⁾ Not

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1. E.C., "Notes for a speech at Leicester", MS, August 1843.
2. E.C. - Lord Lansdowne, 31 July 1844. A forerunner of the modern Nursing Home, "The Sanatorium" was opened in 1842 at

(Continued on next page)

benevolence but self-interest was the motive which should be invoked by the social reformer. The logic of Chadwick's argument runs simply enough. More and more he looked to the great capitalists, whose crude creative energy was equipping Britain with an expensive, ill-planned, but modern system of communications, to furnish the brains and the money to re-build the towns. Such men would move only if they were guaranteed a safe six or seven per cent. on their outlay. Now all Chadwick's inquiries and experiments tended to prove that profits as high as this could be made on the construction of sanitary works; and that the capitalists were overlooking a vast, untapped market right under their noses --- the millions of the have-nots, dirty, ill-clad and miserably housed, the supply of whose needs would form the basis of a score of new industries. It followed, if this were a true picture of the situation, that it was a grave error in tactics to let it be put about that model houses and reconstructed sewers could return no more than four per cent. Thus, when Southwood Smith outlined to him in July 1844, the plans of the Society for Improving the Dwellings of the Labouring Classes, he was ready with his advice and sympathy, but he firmly declined to allow his name to appear as one of the Committee. He was confident, he explained, that if large capital were engaged a profit of six or seven per cent. could be obtained from a superior dwelling let at the same rents now charged for wretched hovels; but the Doctor based the institution on charity and benevolence and proposed to restrict the profits to four per cent., so discarding the powerful stimulus of commercial success. He urged on Southwood Smith, therefore, that the Board of Trade should be asked to reconsider the limitation of interest which had been inserted in the Society's charter, and "to place the proceedings on a commercial principle simply, as being really

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(Continued from previous page) Devonshire House, Regent's Park, as a "home in sickness" for members of the middle classes. (C.L. Lewes, op. cit., pp. 30 - 34).

the most benevolent in its ultimate operation to the working classes".⁽¹⁾ The same logic runs through the advice he gave to James Matheson, who was about to spend some of the fortune he had made in India on improving the town of Stornoway. "You express your readiness to adopt any improvement, which may not be of disproportionate expense", Chadwick told him, "I hope you will deem no plan sound that will not be in the end remunerative. I shall one day or other have a chapter to promulgate, as a warning of the mischiefs done by the late Duke of Bedford, and others, in their notions of "doing good to the poor" making work for the sake of employing the poor --- when they have only, so far as their labours went, in nine cases out of ten, gone to make paupers, burthensome to others, as well as themselves. Depend upon it that you serve the population in the best manner, when your proceedings have a thoroughly commercial basis, and you make them answer commercially to yourself. You take the best course for improving the population, when you conduct remunerative works, which make it to your own interest, to get skilful, intelligent labourers, foremen and others of various grades to carry them out. The improvement of agricultural processes, and encreased requirements of skill, I have everywhere observed is equivalent to an improvement of the population".⁽²⁾

By the end of 1844, therefore, Chadwick was telling his friends that there was little chance of effectual measures of sanitary improvement being carried out early, vigorously, or comprehensively, unless they were carried out commercially. "Administration seems not likely to attain that reach of improvement, when a vital interest in success will be given to the administrators, or the same motives to vigilance and economy in the expenditure of the public money that capitalists have in spending their own", he observed to one.⁽³⁾ To another he

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1. E.C. - Southwood Smith, 1 July 1844.
2. E.C. - James Matheson, 18 March 1845.
3. E.C. - Raikes Currie, 26 October 1844.

defined his position in detail:

"You ask me whether I think the water supply of the town may be best carried out by a Company or by the municipality. All the evidence collected under the Commission of Inquiry would I think establish the fact that it will everywhere be best carried out by a private Company on proper conditions and with new securities for the public; making the Company lessees instead of proprietors..... In the sanitary report I held up the instance of the supply of gas to Manchester by the municipality but I have since been led to believe that the Manchester people would get more if they let the works out than now when they are conducted by the corporation officers Very recently the corporation of the town of Hull undertook to provide an extended supply of water for the inhabitants. For the supply of 8,000 houses, they have without any jobbing incurred an expense of £55,000: and that too for a very imperfect supply and they may charge 6 per cent. on the rental for it. The Nottingham Company gives a superior and constant supply for not more than 3 per cent. on the rental: and having expended no more than £32,000, notwithstanding much extra expense, they make a return of 6 per cent. to the ratepayers. In most of such public works the expense of management is not less than 20 per cent. on the outlay. They are wasteful from ignorance as well as from jobbing".⁽¹⁾

This excessive enthusiasm for private enterprise (but, be it noted, under strong securities for the public interest) was out of character, and was soon to wilt. It had its origins in a complex of considerations: his scorn for local administrative ability, his anxiety to get sanitary reform under way without waiting on the slow pace of a reluctant Government, the influence of the engineer, Thomas Hawkesley, whose Nottingham Water Company seemed a model of efficiency and economy.⁽²⁾ Possibly his marriage in 1839 to Rachel Dawson

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1. E.C. - J. Hodson, 10 April 1845.
2. "Nottingham is a pattern place for the supply of water". (E.C. - J. Booth, 12 February 1845).

Kennedy, fifth daughter of John Kennedy, the cotton manufacturer, had left him more open to the arguments of Manchester. Certainly he had lately made the personal acquaintance of some of the great railway capitalists, and had imbibed from them something of the romantic theory of capitalism, the hero of which was the self-made man, who by energy, thrift, and a strict attention to "sound economic principles of trade", forged upwards from the bottom of the social pyramid to become the chairman of a company. There was James Morrison, for example, the railway director, who had come up to London with all his worldly goods in a cotton pocket handkerchief, had prospered, married a partner's daughter, and was now worth three millions. "His cardinal maxims", Chadwick told Colonel Phipps, Prince Albert's secretary, "were on all occasions to tell the truth, always to consult the interests of the consumer; and always share profits with him". His rule was not that of the vulgar money-grubber, "to buy cheap and sell dear", but "to buy cheap and sell cheap", not varying his prices according to his supposition of what the customer could afford to pay. Keeping the same excellent rules, his eldest son had already made a quarter of a million.⁽¹⁾ There seemed no reason why Edwin Chadwick also, if he turned his abilities to commerce, should not in due time become a millionaire.

On these twin postulates, therefore, --- that municipalities were incompetent to manage such services as gas and water supply; and that, of all motives to appeal to, self-interest was the steadiest and most powerful --- was based Chadwick's grand scheme for a Towns Improvement Company. His interrogation of witnesses before the Health of Towns Commission had left him, as we have seen, with the conviction that there was money to be made not only out of the supply of water but also out of the disposal of sewage.⁽²⁾ The figures of practical engineers and farmers could be shown to prove it. For a penny

1. E.C. - Col. Phipps, n.d.

2. See above, p. 174.

a week supplies of water, constant and at high pressure, could be extended to lower class houses; for another penny those houses could be drained; for another pavements and roadways could be washed and swept. A company could safely contract to perform these services at a fair rate of profit, and in addition it could count on an immense return from the sale of rich town manure to progressive farmers. Three points were essential to the scheme. The company must have a monopoly of the field of supply. It must contract for all three of the interdependent services of water supply, drainage, and sewage disposal. And, finally, the service must be universal, to all classes of the community, and paid for by a compulsory rate. For, as he explained to Thomas Hawkesley, "the best securities for a fair and liberal and permanent profit, will be in the close consultation of the wants conveniences comforts and means of the greatest number of the poorest classes of the consumers and in moderate profits on extended supplies, rather than very high profits on narrow supplies".⁽¹⁾

The field of operations open to such a company was immense. In Britain, in the colonies, in every country in Europe, there were scores of towns which needed water and sewers. Carlisle, Durham, Frome, Kidderminster, Salisbury, Merthyr Tydvil, Stourbridge, Walsall, Wednesbury, West Bromwich, Wrexham, Wolverhampton --- these were only a few of the places without an adequate water supply.⁽²⁾ Berlin had already asked Chadwick's advice, and he had heard that he was a greater prophet in Germany than in England.⁽³⁾ Paris, again, would make the best enterprise in Europe; if only Guizot would take his mind off Algiers and draw his head for a moment out of the clouds of high politics, Chadwick could show him how the highest rooms in Paris could be supplied with filtered water for three sous a ton, as compared with the nine francs at present paid

1. E.C. - T. Hawkesley, 25 November 1844.
2. E.C. - T. Hawkesley, 7 March 1845.
3. E.C. - T. Hawkesley, 11 August 1844.

to the "porteurs d'eau".⁽¹⁾ Turning over these possibilities, Chadwick was flushed with the vision of himself as managing director of a vast public utility company with ramifications in every country, which would be the instrument for carrying out his sanitary schemes and would serve at the same time as a "golden bridge for escape" from the insults to which he felt himself exposed at Somerset House.⁽²⁾

The scheme began promisingly. Sir John Easthope, the first chairman of the London and Southampton line, gave his "very hearty concurrence", and declared his willingness to embark £50,000 or more.⁽³⁾ Other capitalists of European reputation, among them Raikes Currie, Sir George de Larpent, James Matheson, James Morrison, John Moss. Edward and Anthony Strutt, J.L. Ricardo, Rowland Hill, Nassau Senior, fell under the spell of Chadwick's tale of gold from sewage. "Such a conjunction, such an Assembly of Eagles on the same perch had perhaps never before been seen", he exclaimed in delight.⁽⁴⁾ The company was registered on the 7th August 1845, with Lord Francis Egerton as its chairman, three millionaires amongst its backers, and a team of technical consultants chosen by Chadwick for their known sympathy with the most advanced ideas in sanitary engineering --- Thomas Hawkesley and Chadwell Mylne for water supply, John Roe and Butler Williams for drainage, Smith of Deanston and Captain Vetch for sewage disposal. It was proposed to raise £1,000,000, on which a return of at least six per cent., and perhaps nine or ten per cent., was promised.⁽⁵⁾ In a tour of the provinces Chadwick expounded to local capitalists the advantages of investing in a venture which

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1. E.C. - Sir John Easthope, 23 November and 31 October 1844.
2. E.C. - T. Hawkesley, 8 August 1845.
3. E.C. - T. Hawkesley, 22 October 1844.
4. E.C. - Sir John Easthope, 2 October 1845.
5. Chadwick drafted the prospectus in March 1845, entitling it "Prospectus of a Public Company to be called the British, Colonial, and Foreign Drainage, Water Supply, and Towns Improvement Company".

offered double the return of the average railway speculation, and combated everywhere the heresy of a water supply divorced from drainage and sewage disposal. At Bristol the Merchant Venturers showed a disposition to co-operate⁽¹⁾; at Leicester, Lancaster, and Exeter strong parties were converted⁽²⁾; at Manchester he addressed members of the Corporation for an hour, and made an impression on Cobden.⁽³⁾ He returned in high hopes to London with engagements to the extent of £700,000.⁽⁴⁾ From Lyons, too, came an attractive offer, which seemed to promise a brilliant commercial result; there was hope of Paris; and inquiries were received from Athens, Berlin, Frankfort, and Munich.

But good will and promises and five competent engineering reports remained the extent of the company's achievement. Chadwick's prospectus was swamped in a sea of railway advertisements; his engineers were lured away by offers of seven

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1. E.C. - T. Hawkesley, 18 July 1845. A letter to Lord Ebrington (2 August 1845) is typical of Chadwick's optimistic correspondence of this period: "At Bristol a local scheme was on foot to supply the town with water. This scheme was to take it from the Avon which is polluted with the sewage of Bath and other districts. Their expenditure was to be for this supply £200,000, or the same sum for supply from a spring which we found would only have given one fourth the quantity required. We were fortunate in finding a pure source from which a double supply may be obtained at half the price. The facilities for the application of refuse, though great naturally, were not great in the intelligence of the owners of the lands adjacent to the town. Exeter we found was supplied with about half the quantity of water it ought to have, by a joint stock company conducted on erroneous principles. Mr. Terrell a solicitor who is one of the town's improvement commissioners had brought the subject of the application of the refuse before that body, but they declined to have anything to do with it, and we found the field left open to the proposed company. Mr. Smith and Mr. Hawkesley saw at once that the facilities for its application there are peculiarly good: the land adjacent is very poor for the situation, and held by intelligent owners, and occupied by farmers who are very sensible of the value of liquid manure!"
2. E.C. - R.A. Slaney, 6 September 1845.
3. E.C. - Raikes Currie, 25 September 1845.
4. E.C. - Capt. Vetch, 25 September 1845.

and a half guineas a day as railway surveyors; and his millionaires succumbed one by one to the madness of the great railway boom.⁽¹⁾ At Leicester, after six months of negotiation with local capitalists, who were reluctant to see the control of the town's water supply pass to a London company, only £7,000 of the £70,000 required could be raised.⁽²⁾ At Manchester and Bristol Chadwick's company found itself opposed by separate water schemes, which drew away support because their offers seemed less speculative.⁽³⁾ The optimistic prospectus was founded largely on the experience of Thomas Hawkesley, and it was a severe blow to Chadwick when this expert of his own choice began to exhibit heretical tendencies. He was bewildered when Hawkesley accepted a retainer from the Lancashire Water Company in September 1845.⁽⁴⁾ How could Hawkesley square advocacy of a new company with his published views which condemned the intrusion of second capitals into the same field? Such a scene would rejoice the old-style water engineers, the Simpsons and the Wicksteeds, exceedingly! ⁽⁵⁾ When Hawkesley began to cast doubts on the accuracy of Chadwick's figures for the returns from sewage irrigation, the break became complete.⁽⁶⁾ It was certainly strange, if Hawkesley was so dubious of the soundness of the scheme, that he waited eighteen months, and until Chadwick was having difficulty in raising capital, to reveal it.

But the most fundamental weakness of all was the impression which had spread in business circles that the company had philanthropic objects. "One of our Capitalists had objected to me! as tending to taint the list with benevolence and philanthropy", Chadwick observed with uneasy heartiness.⁽⁷⁾

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1. T. Hawkesley - E.C., 16 October 1845; E.C. - Dr. P.H. Holland, 22 October 1845.
2. E.C. - Dr. P.H. Holland, 26 January 1846.
3. E.C. - T. Reynolds, 19 April 1846; Dr. P.H. Holland - E.C., 3 July 1846.
4. E.C. - Dr. P.H. Holland, 16 September 1845.
5. E.C. - T. Hawkesley, 31 August 1845.
6. E.C. - T. Hawkesley, 26 October 1845.
7. E.C. - Lord Francis Egerton, 1 November 1845.

"So good a commercial man as Mr. Bates", he wrote urgently to Nassau Senior, "should not be allowed to labour under the delusion that there is any more patriotism in the objects of the proposed Company than there is in the every day operations of his own counting house in supplying the wants of the needy in all parts of the world with goods, or money, and receiving in tale, and measure, in a solid and tangible shape the expression of their sense of gratitude for the amount of service rendered to them He owes some apology to the gentlemen whose names are on the prospectus for so injurious a supposition".⁽¹⁾ But it was in vain that Chadwick pointed to the adhesion of John Moss, the chairman of the Grand Junction Company, "a firm minded man who would not let his feelings get the better of his pecuniary judgment";⁽²⁾ in vain that he declared that for the sake of humanity the percentage should be looked to with the eye of a Shylock.⁽³⁾ It was whispered that a company to furnish the houses of the poor with water and drains must be humanitarian and patriotic, and as such offensive to the business conscience.

Some £600 had been spent on the prospectuses, advertisements, and reports of the Towns Improvement Company, of which nearly £500 had come out of Chadwick's pocket. The money had not been entirely wasted. For a moderate outlay the company had examined seven towns, Manchester, Salford, Bolton, Leicester, Bristol, Exeter, and Derby, and had produced exploratory reports on the first five of these, indicating how between two and three million pounds might be profitably spent on their improvement.⁽⁴⁾ A surgeon of Manchester, Dr. P.H.

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1. E.C.- Nassau Senior, 11 April 1845.
2. E.C. - Lord Francis Egerton, 1 November 1845.
3. E.C. - Earl of Lovelace, 8 March 1845.
4. "The expositions promulgated by the Towns Improvement Company did great good in paving the way and it is much to be regretted that the money market has never so recovered as to enable it to be carried forward" (E.C. - Earl of Ellesmere, 20 February 1847). He commended the reports to Lord Morpeth "as aiding the consideration of the facienda, in respect to the Inspectors work". (23 October 1848).

Holland, had produced a report on that city which was adjudged by Chadwick to be the best of its kind that had yet appeared.⁽¹⁾ Altogether this field-work in the service of the company undoubtedly stood Chadwick in good stead when he came to direct the activities of his Inspectors at the Board of Health.

After 1846 the Towns Improvement Company fell into a state of suspended animation from which Chadwick never succeeded in awakening it.⁽²⁾ But to its curious history there was a still more curious appendix. By a flash of characteristic ingenuity, Chadwick had conceived the idea of distributing sewer manure by pumps mounted on canal boats, and now, with three other optimistic spirits, Dr. P.H. Holland, Robert Rawlinson the engineer, and Joseph Whitworth the inventor, he formed an association to conduct an experiment on the Bridgewater canal. His hopes --- as usual --- were high. Farmers were shaking their heads over the shortage of manure, yet the sewers of the towns were veritable guano mines. The rich refuse of the towns might be ferried down in boats to the barren and starving farm land, and the produce would float back to feed the workers in the factories. "Chadwick's Elixir" would make the banks of every canal green and fertile.

The idea found little favour, however, with the rugged

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1. E.C. - Dr. P.H. Holland, 28 December 1845.
2. He wrote to Holland, 6 January 1847: "You are to bear in mind that I by no means consider the Towns Improvement Company defunct. Every day brings some new case of a demand". To the Earl of Ellesmere (the former Lord Francis Egerton, chairman of the company), he lamented in a letter of 28 March 1847 that railway demands on the money market still handicapped the company. "Manchester is however shifting for itself, and is going on i.e. the corporation, in a good direction. Into this they have been led by our report. The Leicester people have determined not to wait for a complete measure, and some of our allies there are getting a bill to bring to the town, the water from the new source which we found for them Exeter, Rugby, Worcester are offered. But the Bates and Barings who have never been known to fail before, have very recently failed to raise money for undertakings in which they took especial interest"

farmers of South Lancashire, and they listened with a canny scepticism to these plausible strangers, with their pumps and jets and miles of canvas hose, who promised them agricultural miracles, and offered to manure their fields in return for half the extra crop obtained. Where Dr. Holland, who had been put in charge of the experiment, did find employment for his floating pump, few of his hopeful clients noticed that remarkable transformation of their produce which he had led them to expect.

Part of the misfortune Chadwick attributed to the unhappy Dr. Holland, who was not the man to cope with "this plaguy irrigation". But the failure was due chiefly, he felt, to the farmers of the old "round frock" school, who could not be convinced that they might pay an additional rent by saving the manure which they now wasted. It was a psychological phenomenon, this bucolic resistance to new ideas. As an example of "agricultural logic", Chadwick would tell how the Duke of Bedford attempted to prove to one of his tenants that a certain piece of ploughing could be done as well by two horses as by the four at present used by the farmer. Words failing to carry conviction, the Duke gave an actual demonstration. "The only response which his Grace obtained was that way might be all very well to be worked by a Duke but he as a farmer could not afford it".⁽¹⁾

Chadwick continued the experiment till the end of 1849, paying expenses out of his own pocket, despite Holland's continually more depressing reports and the prudent secession of his allies.⁽²⁾ It was a courageous act of faith, and when

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1. E.C., "Notes on Agricultural Logic", MS, n.d.
2. Writing after the abandonment of the scheme, Holland told Chadwick (3 January 1850) that, although it would be publicly deemed a total failure, he believed the effect of liquid manure on the crops had been shown to be decisive. "The reason of our losses is because so few of the farms are properly drained and cultivated, and so few of the farmers have enterprise enough to try anything new so that we have had nothing like occupation for our engine and man".

defeat could no longer be hidden, he was keenly disappointed. The successful application of sewer manure to agriculture, he believed, would do more than anything else to encourage the adoption of a better system of drainage and water supply and the universal introduction of the water closet. And to the end of his life the productive powers of liquid sewage remained his "King Charles' Head", the fascination of a fortune from town guano drawing him back time and again to the idea of a Towns Improvement Company.⁽¹⁾

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1. In 1872, for example, he attempted to float a "German Towns Improvement Company". Writing to a Berlin correspondent (probably the Mayor), he reviewed recent plans for improving "the most stinking capital in Europe". "Ten years, it is stated to me, have been occupied in consulting experience and preparing plans for measures of relief; and ten years more, it has been stated, are contemplated for their execution. It might indeed be so, if they are set about, without the available experience in such work. But we might undertake, that with a body of German workmen, under the guidance of practical knowledge, a contract shall be given for the completion of the works in question, in three years, and that by the fourth year, a zone of agricultural production shall be seen on the sands round Berlin, such as has never yet been beheld in Germany".

His son, Osbert, wrote to him severely (5 May ? 1885) that he thought he had convinced him that the drainage of towns was not proper work for a syndicate, no contract being possible on such vague terms. "It is quite unsuitable to your age and position to become the tool of a gang of financiers".

CHAPTER 2.STRUGGLE WITH THE SPECULATORS.

The Queen's Speech at the opening of the 1845 session referred to the Health of Towns Report, and voiced the hope that it would form the basis of a measure for "promoting the Health and Comfort of the poorer Classes of My Subjects".⁽¹⁾ So, for the first time in history, a British Government announced that its legislative programme included a Public Health Bill. The period of inquiry, begun in 1838, was finished; and Chadwick's seven years of ceaseless investigation and argument had brought the Government to the point of action. The question remained whether that action would be as bold and as comprehensive as he had planned. He had wished --- as the memoranda he had laid before Buccleuch show clearly --- that the Commissioners would embody their recommendations in the actual clauses of a Bill, dictated by himself, and so strongly buttressed by the evidence and the authority of a Royal Commission that it must pass without substantial alteration by the legislature. The Government had other intentions, however, and the preparation of a Public Health Bill was entrusted to the Earl of Lincoln, Chief Commissioner of Woods and Forests, a couple of months before the Health of Towns Commission presented their Second Report. The decision made two things plain: that the Government looked upon the Bill as the minor measure of a minor department, and that they felt themselves in no wise bound by the conclusions of an inquiry dominated by Edwin Chadwick.

Lord Lincoln immediately turned his back on the Health of Towns Commission, and sought his authorities among the

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1. Hansard, vol. 77, p. 4, 4 February 1845.

builders and architects of the Woods and Forests. "Their working men are entirely of the old school", Chadwick told Lyon Playfair⁽¹⁾; and a day or two later, "I know of no reason to distrust him: but the men about his office are exceedingly to be distrusted who fix the flues of chimneys twice the size that is necessary. There is indeed an impropriety which ought to strike every one in his proceeding to prepare a separate measure without the slightest consultation with the Commission The Chelsea water works offered to give them a constant supply of water for large fountains in Trafalgar Square for £400 per annum. That may be an overcharge: but only think of people who spend £7,000 at once to erect engine houses: steam engines and sink artesian wells for those two fountains!"⁽²⁾

The success or failure of the Towns Improvement Company depended very largely upon the provisions of Lincoln's Bill; and it was the future of his "golden bridge for escape" which was Chadwick's chief anxiety throughout 1845. If the recommendations of the Health of Towns Commission were adopted, companies of the old style, with their separate water schemes and restrictive policies, would be handicapped, and facilities would be granted to a company prepared to carry out combined works by a contract under public regulation. As the 1845 session advanced his hopes rose that Lincoln might be persuaded to ignore the "prejudices of various pestilential interests"⁽³⁾, and that out of the Woods and Forests might yet emerge a well designed Bill; in which event the Towns Improvement Company

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1. E.C. - Lyon Playfair, 14 December 1844. "I have much dread of the advice which will be given to Lord Lincoln by the Woods and Forests builders, who have been advising him for the retention of the old brick drains 9 inch for houses and the retention of cesspools and the provision of parish fire engines for the prevention of fires. If that office have anything to do with the execution of the measure it will certainly be destroyed" (ibid.)
2. E.C. - Lyon Playfair, 16 December 1844.
3. E.C. - Lord Ebrington, 25 June 1845.

might immediately take the field, examining places and recruiting local capitalists, in readiness for a sweeping campaign on the collapse of the railway boom.

Lincoln's Bill made a momentary appearance in July 1845, and was then withdrawn for consideration and amendment during the recess.⁽¹⁾

"Your annoyance at the announcement of today, that the bill will not be pressed this session will not exceed mine that another year's delay is to take place", Chadwick wrote to R.A. Slaney. "But it is to be noted, that if the bill is to be presented in its present shape, as the shape in which it is to be brought forward next session then the whole of the Metropolis, all Scotland and all Ireland is omitted for another year, beyond that session for 1847!

I despair now of doing anything anywhere that is effectual except commercially, and the bill puts all such projects in a very awkward shape so as to prevent instead of facilitating the formation of companies. The new Commissioners are to borrow money at 5 per cent., and the whole machinery is such as will present the aspect of their spending the money so raised: of their executing and maintaining the works instead of the works being maintained, as well as executed by contract as the report recommends. I fear that the large capitalists who have been persuaded to look at the sanitary improvement of towns, will not look at it in the shape proposed in the bill a shape to hold out inducements only to the petty tradesmen of a country town, who alone will serve under the orders or humour the caprices of the other petty tradesmen of country towns, even though they should be presided over by local Donaldsons".⁽²⁾

While Chadwick thus watched anxiously the delaying and

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1. Hansard, vol. 82, p. 1077, 25 July 1845.
2. H.C. - R.A. Slaney, 3 July 1845. Thomas Leverton Donaldson, chairman of the Westminster Commission of Sewers, had defended the old order before the Health of Towns Commission ("First Report", vol. 2, pp. 180 - 202).

possible crippling of his main measure, on the interments question he faced complete deadlock. Throughout 1845 Sir James Graham maintained an imperturbable front. When a newspaper report was brought to his attention, describing the practice in the Clerkenwell churchyard of disinterring bodies after a few days, chopping them with a spade, and burning the pieces in a bonehouse, he consented to make inquiries --- "though he thought there would be some difficulty in removing the cause of the evil".⁽¹⁾ A week later he observed that he "feared that any prohibition of interment within the walls of a city would not be in harmony with the feelings of a great body of the people".⁽²⁾ Chadwick exploded into protest. Who were these people who were so attached to the practice? Was it the working classes, the poor, the uneasy, the heavily laden, who dwelt with complacency upon burials in the over-gorged charnels of the metropolis, where newly buried corpses ~~are~~^{were} hacked and hewn by the sexton's shovel to make way for others? Was it the middle and higher classes, who were abandoning family vaults in the graveyards, preferring to pay heavily for interment in Kensal Green cemetery? Since it was clearly none of these, then who constituted this "great body"? A portion of the clergy! "Are we to endure to have it held up before this country and before all Europe, that respect for the dead and the health of the living are to be prostrated for the maintenance of clerical domination, or rapacity for fees or for the lowest traders' pelf? The legislature seeing the evils fully displayed, and the course of remedy demonstrated, by the example of civilised nations, is it to be allowed to go forth that the moral courage of our leading public men is so low, or their perceptions so obtuse, or their capacity so feeble that administrative measures which have been carried out in Austria, Prussia, Russia, Weimar, nay even in Spain, and are seen to elevate the feelings of the population are beyond the capacity of our parliament or our

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1. Hansard, vol. 77, p. 1234, 26 February 1845.

2. *ibid.*, vol. 78, p. 325, 5 March 1845.

Government!"⁽¹⁾

On the 8th April 1845 James Mackinnon confronted the Government with a resolution condemning intramural interment. Faced with an inescapable decision, Graham came out openly in support of the existing system. Waving aside the "exaggerated views entertained on the subject", he declared that it would not be easy to stop people being buried in the places where their kindred lay. He refused to admit that the public health was endangered; there was no metropolis in the world where health was so well preserved. If they adopted Chadwick's suggestion, and prohibited absolutely interments in cities and towns, public feeling would be greatly excited, if not grossly violated. Were the Government to undertake the arrangements for burial, it would be intruding in a field where private companies were beginning to enter; so they should take care "lest, by a compulsory enactment, they interrupted that course of feeling, which, if left to itself, would remedy the evil". Graham was decisively routed in the debate, and Mackinnon's resolution was carried by 66 votes to 49.⁽²⁾ Chadwick, who judged that the vested interests in burial fees had prevailed with the Home Secretary,⁽³⁾ was delighted, but the victory brought no change in the attitude of the Government, which was clearly unwilling to believe in the nuisance because of the trouble it would be put to in finding a remedy.

Corn dominated the Parliamentary scene in 1846, and it was soon evident that until the manufacturer and the landlord had played out their parts in the drama of the session, the public health reformers must content themselves in patience. But the year showed some notable advances, and the fact that not all of them originated directly with Chadwick proved that the "sanitary idea" was pushing out roots into many influential

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1. E.C., MS fragment, n.d.

2. Hansard, vol. 79, pp. 330 - 359, 8 April 1845.

3. E.C. - J.H. Burton, 12 April 1845.

quarters. An Act was passed to authorise Town Councils to establish public baths and washhouses, defraying the cost out of the rates.⁽¹⁾ A Nuisances Removal Act empowered Boards of Guardians in the rural areas to indict nuisances before the Justices of the Peace, and, where the order for removal was met by recalcitrance or continued neglect, to take steps to execute it at the expense of the person responsible.⁽²⁾ Sanitary legislation thus made its first tentative step into the rural areas; and for the narrow purposes of the Act the parish was replaced as the responsible authority by the Poor Law Union, with its superior efficiency, its paid medical staff, and its responsiveness to control and instruction from the centre. Another clause of the same Act authorised the Privy Council to issue emergency Orders if any place should be threatened by "formidable contagious or epidemic Diseases". This measure was in fact, the first payment made by fear on an insurance policy against the cholera, which even then was advancing on the south-eastern frontiers of Europe.

To balance these small gains there was another check on the interments question, and a further delay in the introduction of a Public Health Bill. In April James Mackinnon brought in a Bill drafted by Chadwick on the conclusions of the Interments Report.⁽³⁾ "Sir James Graham has become so unpopular",

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1. "An Act to encourage the establishment of public Baths and Washhouses", 9 and 10 Vict. c. 74, 26 August 1846.
2. "An Act for the more speedy removal of certain Nuisances, and to enable the Privy Council to make Regulations for the Prevention of contagious and epidemic Diseases until the 31st Day of August 1847, and to the end of the then next Session of Parliament", 9 and 10 Vict. c. 96, 28 August 1846. Amended by 11 and 12 Vict. c. 123 and 12 and 13 Vict. c. 111.
3. "For providing Cemeteries, and promoting the Public Health in Towns and Populous Districts", 1846 (516).I. 255. The Bill provided for:
 1. A Burial Commission under the supervision of the Privy Council.
 2. A local inquiry by a Government Inspector, his report being submitted for the approval of the Privy Council, the

(Continued on next page)

Chadwick wrote hopefully to the Bishop of London, "that it is more than probable that his opposition would contribute to the success of Mr. Mackinnon who will receive support from both sides of the house".⁽¹⁾ Graham unbent so far as to allow him to circulate privately amongst the Bishops the provisions of the Bill⁽²⁾; but with the collapse of the Tory Government, it disappeared once more from view. Not until the General Board of Health was installed at Gwydyr House did Chadwick get the opportunity to carry out his interments scheme.

Lord Lincoln's Public Health Bill⁽³⁾ re-appeared, unchanged, at the beginning of the session, and Chadwick promptly joined with Southwood Smith to draw up a detailed report on its provisions for publication by the London branch of the Health of Towns Association.⁽⁴⁾ This interesting pamphlet illuminates not only the defects of the Government measure, but also certain peculiar limitations in the view-point of the sanitary reformers themselves. On the whole the Bill was a great improvement on

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(Continued from previous page) Bishop, and the district concerned.

3. A local committee of clergy, members of elected bodies, and a number of the residents to manage the cemetery. A separate committee of Dissenters might be appointed to manage the unconsecrated portion.

4. An Officer of Health, appointed by the local committee, subject to the approval of the Privy Council.

5. Contracts with undertakers to furnish funeral materials, according to specifications prepared by the Officer of Health.

6. Compensation for clergy, clerks, sextons, companies and private owners dispossessed by the Act.

7. Thirty-year loans, secured on the burial dues, to defray the cost of the cemetery.

1. E.C. - Bishop Blomfield, 9 March 1846.

2. J. Mackinnon - E.C., 10 June 1846. The draft was sent to the Bishops of Norwich and Chester on 22 June 1846.

3. "For the Improvement of the Sewerage and Drainage of Towns and Populous Districts, and for making Provision for an ample supply of Water, and for otherwise promoting the Health and Convenience of the Inhabitants", 1845 (574). V. 363.

4. "Report of the Committee to the Members of the Association, on Lord Lincoln's Sewerage, Drainage, etc. of Towns Bill", Charles Knight and Co., 1846.

earlier attempts, the report conceded, and might form an excellent basis for a comprehensive sanitary measure. It recognised the principle that the whole of the natural drainage area, together with all the works for water supply, sewerage, drainage, cleansing and paving, should be under a single authority. It protected the interests of the community by the supervision of an impartial Government Inspector. It provided for surveys by competent engineers, for the examination of plans by responsible public officers, for the publication of expository reports to be circulated locally. It permitted local authorities to enter into contracts for the maintenance and execution of the combined works, under the supervision of a competent, paid, and responsible Surveyor. It stipulated that an Inspector of Nuisances and a Medical Officer of Health should be appointed. All these things were new, all were steps in the right direction, and they were by themselves sufficient to effect a highly beneficial change in the sanitary condition of the people.⁽¹⁾

The tone changed sharply from satisfaction to criticism, however, when the report went on to consider the administrative machinery. A novel and complicated field of administration was to be entrusted to a man whose every moment of time was already in incessant demand from the vast and undifferentiated functions of an unwieldy department: the Home Secretary --- Cabinet Minister and party leader, head of the metropolitan police and of the unpaid and stipendiary magistracy, regulator of prisons, protector of young persons in factories, supervisor of the Poor Law, superintendent of Irish affairs, and judge of appeal in the last resort --- was now expected to add to his labours the smelling out of nuisances, the planning of drainage and water systems, and the perusal of the multitudinous reports of Nuisance Inspectors and Officers of Health. Even Sir James Graham, with his "athletic strength and powerful intellect",

1. *ibid.*, pp. 4 - 5.

exhibited plain signs of overwork, and --- Southwood Smith charitably suggested --- the failure of measure after measure in his hands was due in large part to the inadequate attention he could afford to give them.⁽¹⁾ The practical result would be to abandon sanitary measures to the chance zeal of a clerk or some other unknown and irresponsible subordinate; who would be (to quote a parallel not given in the report) the Home Office equivalent of Charles Buller's harassed Mr. Mothercountry in the Colonial Office, so immersed in his departmental duties that he had no time to obtain sound and first-hand knowledge of the colonies over which he exercised his obscure and dictatorial authority. It would be far better, declared the report, to charge the duties of supervision on the Privy Council, who might delegate one or more of their number to pay special, constant, and public attention to sanitary affairs⁽²⁾; and where, the report omitted to add, Edwin Chadwick might secure in public health the key position that Kay Shuttleworth now occupied in education.

The sanitary reformers were no better pleased with the proposal to establish elective local Boards, which committed the cardinal error, illustrated time after time in the shady history of the Sewers Commissions, of making a numerous local authority an executive instead of a supervisory body.⁽³⁾ The responsibility of preparing plans and estimates for public works should be concentrated on the local Surveyor, who should be a qualified civil engineer; and, while the local Board should determine the expediency, efficiency, and completeness of the works, they should not be given powers to interfere in technical matters on which they were incompetent to form a sound judgment. Moreover, the Board should be entirely barred from executing works by themselves or even by their officers, and should be obliged to carry them all out by contract under the supervision

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1. *ibid.*, pp. 9 - 11.
2. *ibid.*, p. 14.
3. *ibid.*, p. 16.

of their Surveyor. The merely permissive authority under the Bill to enter into contracts for the construction and maintenance of works should be made peremptory. In this connection, and considering that "the object of the Legislature should be to engage and regulate the spirit of commercial enterprise in the execution of the measures of sanitary improvement", the report regretted that no facilities were offered by the Bill to induce joint stock companies to make tenders for contracts.⁽¹⁾ Nor was this the only serious departure from the recommendations of the Health of Towns Commission. The Bill was limited to England and Wales, and London was omitted, although the specific proposals in the Commission's Second Report applied directly to metropolitan evils. The essential point had been missed that the loan for defraying the cost of the local works should be spread over a period coincident with the benefit derived from them; while the old practice was continued of looking to the owner to pay the charges and to execute the domestic works by arrangement with his own plumber and bricklayer.⁽²⁾ There was no stipulation that every water company seeking legislative aid and protection should be compelled to furnish a constant supply of filtered water at high service. Furthermore, phrases in the Bill clearly recognised the existence and envisaged the extension of the cesspool and the privy, despite the accumulated evidence proving their expense, noxiousness, and inefficiency. "If intermittent supplies of unfiltered and filthy water, if expensive tanks and cisterns in which this water may stagnate and acquire still further impurities, if cesspools and privies,

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1. *ibid.*, pp. 21 - 27.
2. "On this principle the main difficulty of carrying out sanitary improvements, namely, the difficulty of meeting the immediate outlay, is retained in its full force; while the interests of the landlord being always materially injured, and in some cases his property being confiscated, a combination of this whole class against the bill, and, if it should pass into an act, against the due execution of the law, is certain" (*ibid.*, p. 33).

if "nightmen to carry away night-soil" --- if all this is still to be perpetuated and encouraged, perpetuated and encouraged by being legalised, then indeed witnesses will have testified and commissioners will have reported in vain against a system which all classes concur in stating to be the most costly, and under which all declare that it is impossible that "any population can be healthy" (1)

Great advance though the Bill was, therefore, on Lord Normanby's measures of four years earlier, its provisions showed unmistakably that, as the report put it, it had been produced not by James Graham but by some ignorant legal draftsman. (2) Soon after the Bill re-appeared, however, it became clear that there was no chance of its passing into law in the 1846 session. Chadwick resigned himself to another twelve month's delay, until the new Whig Government should recast the measure bequeathed to them by Lord Lincoln. Perhaps the change of Government might justify a year's postponement; Lord Morpeth, who succeeded at the Woods and Forests, was certainly more amenable than Lord Lincoln, and no Home Secretary could be less sympathetic than Sir James Graham. When Lord John Russell made an address to his constituents in July 1846, he announced his intention of taking up this grievously neglected field of legislation. (3) Chadwick was delighted; public opinion was advancing on sanitary questions, he felt, and they were being officially thought of at last (4). Meanwhile the London and provincial branches of the Health of Towns Association passed their resolutions and circulated their leaflets; Southwood Smith and Dr. Holland wrote their articles; and Chadwick dreamed and planned still for the conquests of his joint stock company.

1846 is the year of the Andover Committee, and of Chadwick's final break with the Poor Law Commissioners, which

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1. *ibid.*, p. 71.
2. *ibid.*, p. 11.
3. E.C. - Dr. P.H. Holland, 4 July 1846.
4. E.C. - J. Whitworth, 28 September 1846.

will be described in the next chapter. And the defence of his reputation against his official superiors was not the only heavy burden which the events of the session threw upon him. During the lull in the main battle for a Public Health Bill, he engaged in two brisk campaigns against the over-mighty capitalists of water and railways. For to Chadwick the self-government of capitalists was no better than the self-government of local authorities. Great though his faith was in self-interest, it was as the spring of individual vigour and efficiency that it met with his approval, and as the mostt persistent and calculable element in human character that it figured so prominently in his thought. He saw no evidence at all that social benefits resulted of necessity from its pursuit, and much which persuaded him that without the barriers erected by the law its undirected energies might disrupt society. He put his trust, therefore, not in the rule of some "invisible hand", blending the interests of the individual and society in a mystic reconciliation, but in the secular authority of the State which, abandoning the superstitions of laissez-faire, should intervene to guide the activities of individuals towards the desirable goals of communal welfare.

The publication in the previous year of the Second Report of the Health of Towns Commission, foreshadowing public control of water supplies in the not too distant future, had been followed by a sudden rush of water companies to seize the most eligible sources for the supply of towns. In this Chadwick saw a double danger. At the very moment when legislation was under consideration for combining water and drainage establishments in every town, and for extending to all classes constant supplies of pure water, separate water companies on the old model, with their intermittent service and restrictive policies, were establishing themselves in positions of vantage; in some places, indeed, rival companies were being formed, threatening to develop a type of competition condemned by the

Royal Commission only a few weeks before. Once established, such companies would be obstacles to the introduction of the new principles; they would be able to demand large compensation if they were disturbed; and Chadwick had no doubt that their promoters were, in fact, speculating on "forcing the inhabitants to pay heavily when comprehensive measures are adopted".⁽¹⁾ In the second place, these separate schemes endangered the Towns Improvement Company, Chadwick's chosen instrument for the execution of sanitary improvements. As he told the chairman, Lord Francis Egerton, they would deprive "all comprehensive measures of the commercial force, which is so salutary in overcoming the vis inertiae of the towns themselves. The people are accustomed to consider water works as a proper subject for the investment of capital: the instances of companies formed for carrying out drainage works are very few, and may be said to be unknown. The first point of conflict at Leicester was to join the scheme of drainage with the scheme of water works: the next to prevent them separating the water scheme, on which (commercially) they "saw their way clear", --- to a dividend: but the drainage they had never considered. All the commercial motive, contained in the water bills, will by allowing them to be passed separately, be lost to complete works, as it would have been lost in the case of Leicester".⁽²⁾

Hence Chadwick condemned "this hurrying and grabbing of water sources" as "most improvident and unbusinesslike"⁽³⁾, and he instructed his friends that the press should open fire at once on all separate water schemes, for "all those which gain ground will take it from us, from better measures".⁽⁴⁾ Early in 1845 he had drawn up a set of conditions, and had urged on

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1. E.C. - R. Monckton Milnes, 23 February 1846.
2. E.C. - Lord Francis Egerton, 2 April 1846.
3. E.C. - Thomas Hawkesley, 3 November 1845. "The Water-Works and Sewer-Water application questions seem to be making considerable stir. The London Engineers are already chasing about the country for jobs". (T. Hawkesley - E.C., 16 September 1844).
4. E.C. - Dr. P.H. Holland, 1 November 1845.

the Government that the promoters of Private Bills for water supply should be informed that they must insert them or lose their measures. In this document benefits to the consumer were nicely balanced against privileges to the company.⁽¹⁾ The franchise should be granted for a term of years, renewable by the Crown only if it were satisfied after an examination of the needs of the district that the company was still competent to supply them. The works should be repurchaseable, on conditions settled at the time of the concession, by any local administrative body which might thereafter be appointed on behalf of the population. A constant supply at high pressure must be furnished by the contractor, who should also be required to adopt all improvements introduced from time to time in the storage, filtration, and care of the water. The company should be bound to provide the poorest class of tenements with a constant supply of forty gallons daily of filtered water, at a charge not exceeding 1d. per week, and to maintain the distributary apparatus and house drains for another 1½d. In return the company should enjoy the protection of limited liability, and should be guaranteed against the intrusion of a competitor into the same district. The charges of the service should be repayable by a rate, assessed on the value of the rental of all the tenements rated to the relief of the poor.

These proposals, however, had proved too strong for the Government to accept. The only result of Chadwick's representations was the insertion into some Bills of a Government clause to subject the promoters to any general regulations that might later be approved; and this, as Chadwick complained, was too feeble a safeguard to deter the speculators. Failing to secure allies amongst the Tory Ministers, he declared a private war against the water companies in the summer of 1845,

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1. E.C., "Health of Towns. Points for consideration in respect to Contracts for the execution and maintenance of Works of Water Supply, Drainage and Cleansing by Companies, under Private, Local, or General Acts", MS, N.D.

employing Thomas Hawkesley as his champion before the Select Committees. A few incidents of this obscure struggle may be pieced together from the fugitive notes and memoranda he directed to his friends on the Committees, and to supporters who were conducting parallel campaigns in the localities. There was a keen fight over the Manchester Waterworks Bill, which proposed to raise £600,000 for extension of plant which Hawkesley calculated could be laid down de novo for £250,000. Old companies, Chadwick informed a member of the Committee, habituated as they were to the practice of high charges for limited supplies, always preferred them to extensive supplies at low rates and fixed charges; or rather, their officers did, who saw double trouble without double salaries.⁽¹⁾ The company put forward James Simpson, a London engineer of the old school, as their expert to testify that a constant and universal supply would cost them another £100,000; Hawkesley in rebuttal stated that if the Manchester company was not prepared to give a constant supply of filtered water at a penny a week to labouring class tenements, the Towns Improvement Company would;⁽²⁾ and he went on to combat the company's assertion that filtration was unnecessary, and their demand that they should be paid extra for the supply to water closets.⁽³⁾

Little return could be shown for Chadwick's efforts to convince the Private Bill Committees that proceedings for water supply alone, in the face of the conclusions of the Royal Commission, must be "mere attorney's jobs for the sake of the

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1. E.C. - J. Milner Gibson, 24 May 1845. Hawkesley wrote to Chadwick, 25 May 1845: "I am perfectly astonished at the course taken by the Manchester Water Company and at the very fallacious arguments adduced by Mr. Simpson in support of his own intermittent system. The fact is the London Engineers have so long kept the population on short commons for the purpose of spinning out their own inadequate means that they do not dare to recommend the natural system of supply upon full commons elsewhere lest they should be called upon to give it in the Metropolis".
2. E.C. - J. Milner Gibson, 24 May 1845.
3. E.C. - Dr. P.H. Holland, 29 May 1845.

Bill".⁽¹⁾ Chadwick had the unusual humiliation of being routed by James Simpson, when he appeared in person to protest against a Bill promoted by the Sheffield Waterworks Company for leave to raise fresh capital, twice as much as he estimated the company should require to give a superior supply.⁽²⁾ But he and Hawkesley scored one notable success. The enlightened provisions of the Nottingham Inclosure Act⁽³⁾ owed much to their strenuous intervention, in the teeth of bitter opposition from the Corporation. The truth was, Chadwick heard from Hawkesley, the Corporation was in fear of the "Cowocracy", the Freeman's Rights Committee, "an interest I am sorry to say of the most ignorant corrupt and degraded kind --- an interest which has been the curse of Nottingham as respects its Social Sanatory and Commercial prosperity for many years past".⁽⁴⁾ The assertion of the Nottingham Councillors, despite the statistics, that Nottingham was the healthiest of all the large towns, their corruption (Hawkesley told him that since 1800 a quarter of a million had been spent in direct bribery in the city⁽⁵⁾), and their opposition to the proposal to replace cesspools by water closets --- all confirmed Chadwick in his view that the defence of the public health could not safely be entrusted to municipal authorities.⁽⁶⁾

In 1846 45 drainage and water works Bills were introduced, twice the number for a normal year. Two rival companies were racing to secure water sources for Bristol, both of which the engineers of the Towns Improvement Company had

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1. E.C. - Edmund Ashworth, 4 September 1845.
2. E.C. - T. Hawkesley, 18 July 1845. E.C. - J. Parker, 1 June 1845.
3. 8 and 9 Vict. c. 7. (Private).
4. T. Hawkesley - E.C., 9 February 1845.
5. T. Hawkesley - E.C., 22 September 1844.
6. "The corporation of Nottingham I learn today resisted the clause of the improvement bill which puts an end to cesspools and substitutes soil pans! The more I see the more I am convinced that no other element than the commercial element can or ought to be relied upon" (E.C. - James Smith, 7 March 1845).

examined and rejected as too hard. For Manchester, Liverpool, and Edinburgh also there were two competing water bills.⁽¹⁾ While the Health of Towns Association debated with Lord Lincoln, and the Government moved slow-footed in the direction of control, the speculators were strengthening their grip on the necessities of the public. Chadwick had now lost his champion, for Hawkesley had been seduced from the cause by an offer from the Lancashire Waterworks Company, one of the companies whose principles he had been engaged in attacking. To fill his place Chadwick chose Joseph Hume, the leading Radical advocate of retrenchment, whose voice had recently been raised against the exorbitant fees charged by Parliamentary agents for the drafting of Private Bills. On the 7th April 1846 Hume moved, in the terms of a resolution which Chadwick had put into his hands⁽²⁾, for a Select Committee to examine how far the principles of the Health of Towns Commission could be carried out in the Bills now before the House for the erection of new water works and the execution of drainage, paving, and other improvements. There were more water works Bills this year than had ever before been known, he observed, and none of them should be sanctioned until a Government Commissioner had been sent down to see that the works were in fact required. Instead of members having to decide upon the merits of Bills running counter to each other, they should be asked to determine what actually was the best mode of watering such places as Liverpool and Bristol. There seemed no reason why a general Bill should not be passed, under which any town wishing to have water works might establish them without coming to Parliament at all. Sir James Graham in reply admitted that the announcement of Lincoln's Bill had stimulated speculation, and that a great number of bills had been promoted in consequence to take possession of water sources. But "the jealousy of Parliament ought to be exercised"; and he intended

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1. M.C., "Memoranda on the modes of passing local acts", MS fragment, n.d. (c. April 1846).
2. *ibid.* The memorandum ends in the actual words of Hume's motion.

to insert a clause in each of them, so that the companies would not have an indefeasible title, but only a dependent title contingent on any general measure that might subsequently be passed. (1)

The witnesses before Hume's Committee were marshalled and briefed by Chadwick (2); he cast himself for the chief part, however, and in his evidence replied to questions which he had earlier suggested to Hume. Before the Committee, and even more forcibly in a series of private memoranda, he subjected the whole system of Private Bill legislation to searching criticism, demonstrating at every point the superiority of his own administrative device of local inquiry. He described how, under the forms of a legal conflict between private interests, matters of vital concern to the community at large, affecting its cleanliness, health, law and police, trade and communications, were debated and decided. A glance over a Private Act would soon reveal by whom or for whom it was drawn. In a Waterworks Bill, for example, "this is apparent in summary and stringent remedies by the companies against the consumers and the absence of such remedies by the consumer, or the public against the seller, the company. The tenant whose water supply is stopped or interrupted from any cause, or deteriorated in quality, must pay nevertheless or be deprived of the water. In the local improvement acts where the property in the dust or night soil is given to the Scavenger penalties are provided

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1. Hansard, vol. 35, pp. 670 - 673, 7 April 1846.
2. See, for example, the following letter to Dr. P.W. Holland, 27 April 1846:

"I was with Mr. Hume last night who talks of summoning you before his Committee. I shall then have the opportunity of seeing you and talking over our general views.

The points to which you will be examined are

The necessity of local investigation by an Engineer or competent officer before Parliamentary sanction is obtained:

The combination of works:

The necessity of an inexpensive procedure for small places:

The necessity of postponing all the works in question".

against any person who may remove it, but there are no corresponding summary remedies or penalties against the servants of the companies who neglect to remove it, though dreadful injury as well as painful offensiveness might be inflicted by the neglect. In the earlier railway bills there were summary penalties: rights to take in custody on the loss of tickets or negligences by passengers, but no summary remedy by the passengers or travellers against the companies or the companies' servants"(1)

This exaltation of sectional interests above those of the general public was the natural result of the procedure adopted by the Private Bill Committees in the collection of their evidence. While those interested parties, who were wealthy enough to fee professional advocates and send witnesses to London, were powerfully represented, the labouring classes and the inhabitants at large were usually unable to obtain a hearing; and, in any event, they lacked funds to make the investigations on which an informed opposition could be based. "I may claim to have had some experience in public investigation and I certainly should deem it a grievance to be called upon to pronounce on the first impression, or on a few hours sitting as members of committees are. It takes on any new subject undivided time and more attention to prepare, to investigate, and to judge than Committees are allowed to have for judging. They determine therefore upon the opinions of persons of professional name rather than upon the facts which they rarely can examine for themselves. It is only under this state of things that the extremely defective nature of the works and arrangements carried out can be accounted for This sale of unexamined opinion evidence has led to a most pernicious system of trading in professional evidence. Evidence given in scientific questions has been inserted on cards. Men of science receive retainers: and the past experience will shew

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1. E.C., "Local Acts. How and for whom composed", MS fragment, n.d.

give evidence according to the retainers on one side or the other as may serve with the interests of the party retaining them. This is an evil which I would submit calls for some strong check. The imputation on lawyers of the indiscriminate defence of right or wrong by the indiscriminate use of truth and falsehood, admits of palliation, if not of defence. All the world knows upon what conditions the lawyer speaks: that what he gives as facts are the facts of his client: the advocate's cited cases and not his assertions are relied upon. But the science of the scientific man is taken to be his own science and not the science of his client, made up for the cause".⁽¹⁾ Committees on water Bills, for instance, could not be expected to be conversant with hydraulics; hence while one Committee listened to one school of engineers and declared in favour of constant supply, another leaned to the experts of the old companies and pronounced it to be impracticable. "Notwithstanding the clearly ascertained scientific principles on which the constant supply is founded the weight of the professional testimony as it may be called would have prevailed against it, and deprived the labouring classes and the whole of the public of its advantages had it not been for the fortuitous development of cases where it had occurred".⁽²⁾

If the important classes of legislation now dealt with by Private Bills were to be removed from the atmosphere of partiality and ignorance in which they had hitherto been considered, Chadwick urged, preliminary investigations must be made on the spot by a competent officer, unconnected with the locality and deputed by a Department of State --- a known and responsible informant, instead of the unknown and irresponsible persons who were at present professionally retained to give "opinion evidence" before Committees. He would hear parties who were not now heard; and those who were now heard would be

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1. E.C., MS fragment, n.d.
2. *ibid.*

heard more conveniently, and at greatly reduced expense.⁽¹⁾

"The facts and information are paramount: and those can only be obtained quickly, completely, economically, and satisfactorily in situ".⁽²⁾ Many places in need of lighting, paving, and water --- especially the smaller country towns --- were deterred by the cost of a Private Bill, which even if unopposed might amount to £500. "In the town of St. Helen's, which required a Water Bill, I think the expense of the works was £3,000, and the expense of obtaining the permission of Parliament to erect those works was £1,000; consequently, one-fourth of the money upon which the inhabitants will have to pay interest went for the Parliamentary expenses. In fact, the expense of obtaining works for drainage of many villages, and rather important small towns, would equal the expense of laying down the house drains; and the expense of a Water Bill would equal the expense of laying down the tenants' water pipes."⁽³⁾

Not the least evil of the Private Bill system was that the drafting of the Bills was left to the interested parties and the legal agents retained by them. "By draughtsmanship, powers are obtained, and responsibilities evaded by words which require great vigilance to detect The instance will be within recollection where by skilful draughtsmanship and by omitting the word lottery, lotteries having been suppressed as immoral by the legislature a private act was obtained for the creation of a lottery at Glasgow".⁽⁴⁾ Into the Campbelltown Harbour

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1. "Mr. Chadwick's Suggestions relative to Private Bills. Previous Examination", MS, 13 May 1846.
2. "Local Acts. How and for whom composed", MS fragment, n.d. He told the Select Committee: "I think it important to state, that I have commonly felt very great difficulty in coming to conclusions upon mere documentary representations" (Q. 255): "I have seldom been engaged in any public inquiry in which I could have got on with any degree of satisfaction, but by an examination on the spot" (Q. 327).
3. "Report from the Select Committee appointed to examine the applications for Local Acts", Evidence, Q. 337.
4. "Local Acts. How and for whom composed", MS fragment, n.d.

Bill had crept unnoticed a provision which empowered the provost and baillies to award sentences of hard labour or solitary confinement up to thirty days in duration.⁽¹⁾ "The lower class of attorney will not unfrequently derive emoluments from obscurities or disputes that arise out of the imperfect draughtsmanship or gain an act for the amendment of the first bill in consequence of the imperfect provisions of the first ... Parliamentary orders have constituted a strong interest in favour of separate bills for separating works which are connected. Thus in an instance brought before the House of Lords by Lord Hardwicke, a private act having been applied for, for the drainage of a district by the improvement of a navigable river, that river having three different outfalls into the sea it was held that the powers could not be given without three different acts one for each outfall. In like manner it has been held that, if a town is to be improved by the introduction of water that must be done by one bill: but to authorise the construction of drains or sewers to remove the waste water, that must be done by another bill: the paving by a third the scavenging by another and the fees if not the bills multiplied. These interests in the multiplication of bills and expense ought to be abated: with the encreasing wants of the country there will certainly be an encreasing demand for legitimate, that is to say really beneficial professional service".⁽²⁾ Hence, suggested Chadwick, all future Bills of this nature should be drafted by responsible public officers attached to one of the Government Departments. "It appears to me to be objectionable in principle that legislative expression should be in unknown and irresponsible hands exclusively subservient to the interests of those who retain them. It appears to me that the name of the professional draughtsman or the counsel approving the draught should be upon every bill introduced into the house, and that this would be more important than the names of the

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1. "Report from the Select Committee appointed to examine the applications for Local Acts", Evidence, p. 345.
2. "Local Acts. How and for whom composed", MS fragment, n.d.

members who give a general approval of the objects of the measure but who are not responsible for the professional provisions. The official nomination of the professional draughtsman would it appears to me be the best step to obtain coherence of expression, which may place the laws eventually within the perception of those by whom it is expected they should be obeyed."⁽¹⁾ Amongst other advantages of this method, "the draughtsmanship of classes of bills could not without much misarrangement fail to fall to particular persons who would acquire information in respect to the class of subject, as well as some skill in expression upon it".⁽²⁾

Though Chadwick's criticisms of the Water Bills were toned down, and he failed in his attempt to halt them completely, his hand is evident throughout the Committee's Report.⁽³⁾ The great mass of the so-called Private Bills, they declared, were essentially public in character, yet the public were not represented before the Committees by any competent or duly qualified person. They recommended, therefore, that in future, where only ordinary powers were sought, means should be made available for executing projects under the authority and supervision of a Government Board or Department, without the necessity of applying to Parliament; and that for this purpose

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1. "Local Acts. How and for whom composed", MS fragment, n.d.
2. *ibid.*
3. "Report from the Select Committee appointed to examine the applications for Local Acts during this Session of Parliament, especially in respect to the Bills for the erection of new Water Works, Drainage and Paving, and Improvements, according to the recommendations made by the Commissioners of Inquiry into the means of improving the Health of Towns and densely populated Districts, and to ascertain how far the principle of their recommendations may be carried out in relation to the Bills proposed, and whether any and what measures may be recommended for the adoption of the House", 1846 (556). XII. 1.

One of Chadwick's memoranda, "Local Acts. Considerations in respect of expenses and means of reducing them", is drafted in the form of a Report from the Committee. The Report actually presented contains many of the same points, put more succinctly, and phrased less strongly.

Public General Acts should be passed for all classes of Private Bills, except those which, like Divorce and Estate Bills, were personal in their nature.⁽¹⁾ The procedure under such Public General Acts should be on the lines indicated by Chadwick: a memorial from the promoters to the Department concerned, a local inquiry conducted by an Inspector sent down by the Department, a written report from the Inspector to the Department, which would then decide whether or not to grant the required authority.⁽²⁾ If it appeared likely, however, that private property would be seriously interfered with, the parties should be left to the ordinary mode of proceeding by application to Parliament; with this important difference --- there should be a preliminary investigation on the spot by a Government Inspector, so diminishing the great expense for the attendance of agents and witnesses in London, saving the time of M.P.s now consumed in Committees on Private Bills, and furnishing those Committees with the local and trustworthy information which was now wanting.⁽³⁾ Finally, the Report advised that, to obviate the evils resulting from the lack of uniformity in the construction of Private Bills, a series of Clauses Consolidation Acts should be passed, covering Police and Watching; Waterworks and Sewage; Lighting; the Improvement of Towns and Regulation of Buildings, Streets, and Roads; Markets and Fairs; Cemeteries; Bridges and Ferries; Harbours, Docks, Ports, Piers, and Quays; Canals, Rivers, and Navigation.⁽⁴⁾

Within little more than three weeks of its appearance, the Report bore its first fruit in "An Act for making preliminary inquiries in certain cases of Application for Local

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1. Report, p. iv.
2. *ibid.*, p. v.
3. *ibid.*, pp. v - vi.
4. *ibid.*, p. vi. Three Acts of this type had been passed the previous session, viz., the Companies Clauses Consolidation Act, 1845, 8 and 9 Vict. c. 16; the Lands Clauses Act, 1845, 8 and 9 Vict. c. 18; and the Railways Clauses Act, 1845, 8 and 9 Vict. c. 20.

Acts".⁽¹⁾ This provided that notice in writing, together with copies of the plans, should be submitted to the Commissioners of Woods and Forests, "in any case where it is intended to make an Application to Parliament for an Act for the Establishment of any Waterworks, or for draining, paving, cleansing, lighting, or otherwise improving any Town, District, or Place, or for making, maintaining, or altering any Burial Ground or Cemetery, or for continuing, altering, or enlarging any of the Powers or Provisions contained in any Act or Acts relating to the Purposes aforesaid". The Commissioners would then appoint one or more persons "of competent Skill to be a surveying Officer for that Purpose", who would make a local survey, examine the promoters and their plans, and hear the evidence of local officials and other witnesses.⁽²⁾ In this way, through Chadwick's efforts, another wide province of administration was brought under the jurisdiction of the Government Inspector. Chadwick saw him, detached, capable, incorruptible, impersonally surveying the welter of individual and sectional interests; arbitrating between them, encouraging some, suppressing others, shaping all to the service of the community; bringing the superior science of the centre to solve the technical problems of the locality, and correcting the narrowness of local politics by a broader vision of social aims. He was the channel through which information and guidance flowed out to the local authorities, and facts and opinions flowed back to the Government Department; the agent of the "information-elicitative" and "information-distributive" functions of the State. And, presently, as the Factory Inspectors had become the powerful advocates of a State-controlled education, so the Inspectors of the Woods and Forests and the General Board of Health were to become the advocates, in the field of public utilities, of the principles.

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1. 9 and 10 Vict. c. 106.
2. In the case of Acts relating to a Port, Harbour, Tidal Water, or navigable River, similar inquiries were to be conducted by the Admiralty.

of territorial monopoly and municipal ownership.

In the following year a further recommendation of the Committee was acted upon, and a batch of eight Clauses Consolidation Acts passed into law.⁽¹⁾ In Chadwick's eyes these were of far less importance than the local inquiry. "It appears to me that you have laid too much stress on model Bills", he had told Hume. "We must carefully distinguish between mere legislative style and form, which there is no great difficulty in improving and the matter which can only be improved by laborious investigations of particular subjects in different localities, to which mere lawyers accustomed to deal with evidence brought before them are most unapt All the models I have seen upon subjects with which I have been conversant are very poor and delusive things It will be the local examination and report by competent and really responsible men that will be the improvement".⁽²⁾ But there was, in fact, something more than "mere legislative style and form" in the Model Acts of 1847, and their provisions bear witness to the influence of the public health reformers. Thus, the Towns Improvement Clauses Act obliged the Commissioners to appoint a "duly qualified" Local Surveyor and an Inspector of Nuisances; it prohibited the building of any house without adequate drainage; it permitted the Commissioners to appoint an Officer of Health; it permitted them to contract for a supply of water, and to construct house drains, charging the cost on the

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1. Markets and Fairs Clauses Act, 1847, 10 and 11 Vict. c. 14; Gasworks Clauses Act, 1847, 10 and 11 Vict. c. 15; Commissioners Clauses Act, 1847, 10 and 11 Vict. c. 16; Waterworks Clauses Act, 1847, 10 and 11 Vict. c. 17; Harbours, Docks, and Piers Clauses Act, 1847, c. 27; Towns Improvement Clauses Act, 1847, 10 and 11 Vict. c. 34; Cemeteries Clauses Act, 1847, 10 and 11 Vict. c. 65; Town Police Clauses Act, 1847, 10 and 11 Vict. c. 39.
2. E.C. - J. Hume, 12 April 1846. "The form of legislative expression, the draughtsmanship of bills is subordinate to the question whether the works or things to be sanctioned are deserving of the sanction, and that can only be determined by enquiries by a competent officer on the spot" ("Mr. Chadwick's Suggestions relative to Private Bills. Previous Examination", 13 May 1846).

owner. The Waterworks Clauses Act limited the profits of the company to ten per cent.; it imposed penalties on the company which neglected to comply with a legitimate demand for a supply to be laid on⁽¹⁾; it obliged the company to furnish water for such public services as cleansing the sewers, watering the streets, and supplying baths and wash houses; and it required the undertakers to "provide and keep in the Pipes to be laid down by them a Supply of pure and wholesome Water, sufficient for the domestic Use of all the Inhabitants of the Town or District; and such Supply shall be constantly laid on at such a Pressure as will make the Water reach the top Story of the highest Houses"⁽²⁾ By the Model Acts, therefore, a little was done to clip the independence of the water capitalists, to raise the technical standard of local works, to widen the obligatory functions of local authorities, and to put still wider powers within their reach if they should choose to take advantage of the offer.

It is unfortunate for Chadwick's reputation that his fight on behalf of the railway labourers in 1846 has not been better known. The episode exhibits his best qualities as a man and a reformer --- his sense of public duty, his courage, his contempt for the power of wealth, his sympathy for an exploited class, his power of forceful argument, and of perceiving for social ills their bold, inevitable remedies.

His quarrel with the railway capitalists was on many counts and dated back many years. Ever since the success of

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1. By clause 35 pipes were to be laid wherever they were required by a certain number of owners or occupiers, who should sign an agreement to take the water for three years. By clause 53 every owner and occupier, once the pipes were laid and the rate had been tendered to the company, was entitled to demand and receive a sufficient supply for domestic purposes.
2. But the saving clause was added, ".... unless it be permitted by the special Act that the Water to be supplied by the Undertakers need not be constantly laid on under Pressure" (clause 35).

the Liverpool and Manchester railway, he "had ever the notion that these Iron ways should have been peculiarly the King's Highways and carried out by the government".⁽¹⁾ The Government should determine where the lines should be laid, and should put up for competition the contracts for their construction and maintenance. This did not imply an abandonment of the principle of competition, he pointed out; it offered opportunity for competition on the largest scale, for the whole field of service, not for such part only as could be grabbed from other competitors. Instead he saw that uncontrolled private enterprise was saddling the country with a "disjointed, jarring, conflicting system"⁽²⁾; reckless financiering was threatening to tie and clog in perpetuity the main arteries of communication; and a vital public service was being strangled by ignorant Directors, such as those of the Leeds and Manchester line, who, with the false economy of vulgar traders, imposed charges for the conveyance of fish according to their estimate of its value and the customer's necessity --- so raising its cost above the means of the lower classes, and prohibiting its sale in the widest and most remunerative market.⁽³⁾ During the Health of Towns inquiry, he had discovered how those same Directors tossed carelessly aside all interests, individual and

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1. E.C. - Earl of Ellesmere (Lord Francis Egerton), n.d.
2. E.C., "Address on Railway Reform" (pamphlet), 1865, p. 46.
3. "I enclose you a copy of my notes in relation to the experiment on Fish at Manchester, which I made about a year ago. The increase was very early from 3½ tons to 30 weekly; but great quantities were brought in from other directions of which no account could be got, to meet the new demand. In consequence of the reduction of the charge of transit for milk, from Cheshire to Manchester, I am informed some cheese farms have been converted into dairy farms ..." (E.C. - J. Morrison, 18 March 1845). The illustration was used by Morrison in the Commons, and Chadwick wrote to him after the debate: "You served up the fish well, but, not as would seem from the report with quite the right sauce which was ... that the improvement was shut out from Liverpool because the Liverpool Managers did not choose to adopt the same low though remunerative rates".

social, which did not offer a promise of immediate profit. When a railway company wished to build a new terminus, it would buy up the houses on the desired site and tear them down, ejecting their swarms of working class inhabitants, who were obliged to crowd into the already over-populated tenements in the neighbourhood. Writing to S.H. Laing of the Board of Trade, Chadwick urged that in the two Bills for the establishment of termini in London and Manchester, which were soon to come before his department, some provision should be inserted for the protection of the dispossessed tenants. "No loss, no other hardship than that of being prevented by headlong proceedings entailing much disease and demoralization and aggravations of existing evils which already press so heavily on the ignorant and unprotected, and entailing heavy future charges on the Poor's Rates, would be imposed upon the Railway speculators, nor would any legitimate speculation be impeded"⁽¹⁾. Against such activities the legislature --- uneasily conscious of the growth of these overbearing corporations, but recoiling from the idea that any curb should be placed on private enterprise --- had so far erected only the flimsy powers of supervision exercised by the Board of Trade under the Acts of 1842 and 1844.⁽²⁾

When the second railway boom began in 1845, Chadwick perceived that it would place the Directors, whose irresponsibility and lack of public conscience had so appalled him, in charge of an army of 200,000 labourers, who for the next few years would be employed in constructing the network of new

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1. E.C. - S.H. Laing, 25 November 1844.
2. By the 1842 Act previous notice must be given to the Board of Trade before any new railway were opened. The Board could not interfere with the management of the railway, but it could postpone its opening if it were not satisfied with the conditions for safety. By the 1844 Act Parliament provided that there might be a revision of tolls and fares if the dividend of any railway exceeded 10 per cent., and empowered the Treasury to purchase all new lines laid down after 1844.

lines. Before the Private Bill Committees of the House of Commons, where Directors and landowners and occupiers met to adjust their claims, no one spoke for the railway labourers or gave a thought that their interests were also at stake. The Hudsons and their lawyers seemed incapable of realising that the health and skill of the navvies were a national asset which should be conserved. The best and strongest navvies in the world came from Lancashire and Yorkshire, and their services were frequently sought for the construction of foreign lines; yet they averaged only forty years of life, instead of the sixty they might reasonably expect if they were given fair treatment. The railway labourer had the bad repute of the nomad with none of the romance; he had the hard work and hard living of the pioneer with none of the credit. Torn from his home and village, and removed from the moral control of a recognised and respected place in the community, he was given double wages and was encouraged in drink and debauchery, both by the conditions of his work and by the neglect or active inducements of his employers; and on his discharge, at the end of his two or three years of employment, he was, like many a demobilised soldier, penniless, discontented and reckless.⁽¹⁾ It was a roaring, violent, gipsy life. On the Muirkirk and Ayr Railway the contractor was a "tall powerful Highlander, a man of mere brute passions, who drinks dances and fights with the men He often incites the men to drink, and provokes them in that state to fight in which amusement he seems to take an intense delight".⁽²⁾ The labourers had names, laws, and customs of their own. They called each other Fancy Bob, Bellerophon, Fisherman, Fighting Jack, Brummagem, Long Sam. At their weddings the couple jumped over a broomstick in a room

1. "Papers read before the Statistical Society of Manchester on the Demoralization and Injuries occasioned by the want of proper regulations of Labourers engaged in the Construction and Working of Railways" (pamphlet), 1846, p. 5.

2. Thomas Beggs - M.C., 11 April 1846.

full of men, and were put to bed at once in the same room. (1) Altogether the impact of a railway encampment on a rural community was like that of a marauding army. When rioting broke out in February 1846 between English and Irish navvies on the northern lines, the yeomanry were called out, and the press united to condemn these "savage" and "lawless" men. Robert Rawlinson, the engineer of the Bridgwater Trust, commented that it would be strange if, in the circumstances, they were anything else, and he was echoed by many of the engineers who had lived for years amongst them. (2) The navvies "on the whole are fine, independent, honest fellows, who will well repay any amount of care and attention paid to their physical and moral well-being". declared Butler Williams, "really fine fellows".

(3) "Many of the men are reckless, but what is the cause?" demanded Rawlinson. "No man cares for them; they labour like degraded brutes; they feed and lodge like savages; they are enveloped in vice as with an atmosphere; the sensual only is present". (4)

Here, in fact, was an outstanding example of Chadwick's thesis that the circumstances of men shaped their morals; and he promptly set out to confute the comfortable middle-class belief that the condition of the railway labourers was due to an excessive dose of original sin. As a test case he took the works in progress at the Summit Tunnel on the Sheffield, Ashton-under-Lyme and Manchester Railway, which had been recently visited by a friend of his, Dr. John Roberton, a benevolent

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1. "Papers read before the Statistical Society of Manchester", p. 49 (Rawlinson's evidence).
2. Robert Rawlinson - E.C., 14 February 1846.
3. J. Butler Williams - E.C., 26 December 1845. He added: "Those who are bad characters are the local labourers picked up in each parish as the work proceeds, and who, suddenly elated by double or treble wages, take to drinking, poaching, sheepstealing and the perpetration of other mischiefs laid usually to the doors of the "navigators by profession"; but generally unjustly".
4. "Papers read before the Statistical Society of Manchester", p. 49.

member of the Manchester Statistical Society.⁽¹⁾ The work had been let for £57,000 to a contractor, who two days later had sub-let it for £47,000, and it had since been parcelled out amongst a number of minor contractors. Now, Dr. Robertson described to Chadwick in a long letter of 13 November 1845, a colony of 900 or 1,000 workers with their women, housed in two-roomed huts holding as many as fourteen or fifteen, was clustered round the Tunnel. More than half of both sexes were infected with some form of venereal disease.⁽²⁾ While the railway Directors merely ignored the welfare of the labourers, responsibility for which they considered they had sold with the contract, the sub-contractor had an active interest in defrauding them by truck and enfeebling them by overwork. He drove them without rest, by night and Sunday shifts, so that the line might be opened a few weeks sooner, and he obliged them to buy their beer and provisions at his shop at prices 20 to 50 per cent. above the market rates. "They give us great wages, sir", one labourer remarked ruefully, "but they take it all from us again". They were paid at intervals of a month or longer, usually at a public house, and in the lean weeks between paydays they were driven to seek advances from their employer in the form of printed tickets or orders on his shop. The contractor in some instances probably counted on "plundering by truck", and to meet the keen competition of his rivals made his profit "out of the bowels of his workmen"⁽³⁾; in one notorious case a contractor who stood to lose by the work itself had made a profit of £7,000 from his Tommy-shop.⁽⁴⁾ And yet, noted the

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1. *ibid.*, pp. 9 - 17. Forwarding a copy of the pamphlet to a friend, Chadwick wrote: "Pray read the enclosed just to see the practicality of the Manchester Statistical Society. They are good men those: they have no nonsense about confining their informants to pure statistics, un consequential and unexplained, and uninteresting columns of figures ..." (E.C. - Col. Sykes, 23 February 1846).
2. Robertson states "some form of syphilis", but it seems most probable that this term is intended to cover venereal diseases in general.
3. *ibid.*, pp. 16 - 17.
4. *ibid.*, p. 35.

good Robertson with a tinge of surprise, the labourers' "natural feelings" remained. They had not yet been permeated, like the workers in the large towns, by socialism, "or any other vulgar speculation"; and some of them had even purchased, "at somewhat reduced prices", a total of 22 Bibles, 70 Testaments, and 36 Prayer Books.⁽¹⁾

Using Dr. Robertson's letter as a text, Chadwick drew up a paper in which he outlined the remedies which were within the reach of enlightened administration. Surely, he asked, the grant of privileges involving the aggregation of large masses of labourers should be accompanied by conditions ensuring their proper accommodation and regulation under public inspection? These assemblages of railway labourers were encampments, and should at least have the order of a camp maintained in them. The men could be lodged for small rents in portable, wooden, weather-tight houses; food could be supplied from temporary kitchens; deposits in savings banks might be encouraged; and a school, a small hospital, even a temporary church with a bell, might be erected. There was nothing impracticable in all this. A manufacturer was making just such wooden buildings for export to the colonies, and there seemed no reason why they should not be used nearer home. Nor could continuous work for seven days without a break be defended on the grounds of economy and efficiency. "Merely considering the labourer as a machine, it is as improvident a waste of power, as running post-horses every day in the week is found to be"⁽²⁾; and if the contractor himself were careless of the waste, the rest of the community was bound to intervene. The "principle of superintendence on behalf of the public"⁽³⁾, already sanctioned in the case of factories and mines, was applicable a fortiori to railways.

Against truck, however, he could see no valid objection,

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1. *ibid.*, p. 17.

2. *ibid.*, p. 36.

3. *ibid.*, p. 36.

provided that it ~~was~~^{were} surrounded by adequate safeguards against abuse. Legislative interference with truck had failed, he asserted, and in the case of the railway labourers would forbid payment in kind when this was the most beneficial mode. Railway encampments being often some distance from a town, provisions must be taken out to them, and large-scale purchases by the contractor would be more economical than individual arrangements by the men. The law should, therefore, authorise contacts of hiring and service, which would provide for the payment of stipulated portions of a man's wages in provisions or supplies on terms settled by a written agreement between the labourers and their employer.⁽¹⁾

32 fatal accidents, and an incredible number of minor injuries, fractures, burns, lacerations, and dislocations, had been the cost of the Summit Tunnel in human suffering. Invariably it was proved at the inquest that "it was the man's own fault"; but though coroner's juries might be deceived, experienced engineers were convinced that the majority of the accidents could be traced to the lack of foresight or the cupidity of the contractor. Excavations were worked by vertical falls of earth, "knocking its legs from under it", as the men called it;⁽²⁾ while iron stemmers were used in charging

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1. *ibid.*, pp. 34 - 5. "If I were setting to work as a capitalist to improve the condition of the workpeople I would insist upon payments in kind, or the truck much more extensively. I would supply them not only with food but with clothes and with houses and would beat every other improver. Depend upon it, that it is to the interest of the labouring classes that the profits of retail distribution should go to those who provide them with capital and labour rather than to that ignorant and mischievous set, the beer shop keepers and the small village shop keepers. These last must be superseded and it will be a good result, by the improvement of distribution, by the extension of the principle of large sales for small profits" (E.C. -S. Tremenheere, 4 Sept. 1844).
2. *ibid.*, p. 46. As long ago as September 1840 Butler Williams had suggested to the Board of Trade a simple contrivance which would have prevented numerous accidents caused by the method then in use of detaching the horse from the wagon as it approached the tip; but his suggestion had been ignored. (J. Butler Williams - E.C., 26 December 1845).

blasts, although it was well known that copper would have averted the danger of a sudden explosion set off by a spark. Men working under the directions of a ganger might have as little discretion as the soldier in the ranks; they must use the tools their employer provided, they must act as he ordered, they must work with the fellow labourers he had selected; yet if there were a mishap, the charge of carelessness or neglect of due precautions was levelled only at the workman who was buried when the undercut face of the cutting collapsed or whose head was blown off when a spark from his iron stemmer ignited the explosive. The Directors and the bigger contractors were remote from the accidents, and thought them none of their business; while the sub-contractors, who were on the spot and could take the necessary steps to prevent the accidents, were sensitive to the smallest outlay for precautionary measures. Responsibility somehow leaked away in the gap between the Directors who furnished the capital and the sub-contractors who marshalled the labour. That gap Chadwick proposed to bridge by his doctrine of "pecuniary responsibility", which he had first put forward under the Factory Commission ⁽¹⁾ and had aired again in the Constabulary and Sanitary Reports. What if the Directors and shareholders had to bear the expense of the maintenance and education of the orphaned children up to the age of working ability, and the compensation of the widows for the loss of their husbands' aid and support --- what if they had to bear the expense now falling on the ratepayers or on the individual families, who at present had to bear both the cost and the sorrow of bereavement --- what if each life lost in an accident involved them in an expense of £300 or £400? The Directors would then concentrate responsibility on the sub-contractor, and make sure that he did everything possible to avert such an expenditure. As a general principle, then, Chadwick declared, it should be recognised that "those who erect

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1. See Appendix, pp. 649-651.

machines, or conduct large and dangerous works, or undertake public conveyance, should be pecuniarily responsible for all their unavoidable, as well as for their avoidable consequences".

(1) The strength of the principle was that it was based on self-interest. An appeal to the highest sentiments would call out only a weak and intermittent response. "Self-interest is the most constant --- the most uniform --- most lasting, and most general feeling; and it appears, when traced in its ultimate actions, to be really one of the most beneficent. It at once arrests the attention; and the shrinking from pecuniary responsibility when it is proposed --- the objections that it will be "too serious", and the efforts to evade it, all attest its efficiency". (2) Moreover, the principle was self-acting. "It dispenses with agencies of inspection --- and a priori regulations; it reaches where they could not reach, and renders arbitrary and troublesome interferences unnecessary --- it is awake and active when authority and public attention, and benevolence and humanity are asleep, or powerless". (3)

On the 16th January 1846 Dr. Philip Holland, the secretary of the Manchester branch of the Health of Towns Association, read Chadwick's paper to the Manchester Statistical Society, and Robert Rawlinson followed with a strong letter in support. (4) The Manchester railway Directors had been particularly invited, but not one attended the meeting. "From various indications, which it would be needless to specify" Dr. Robertson reported to Chadwick, "I infer that the subject is distasteful --- they don't like it at all. And no wonder: many of our most respectable influential men have been in the habit of speechifying at the yearly and other meetings of the proprietors of some of the largest Manchester Railways --- as the Leeds, Manchester and Birmingham, Sheffield, etc., in which

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1. "Papers read before the Statistical Society of Manchester", p. 18.
2. *ibid.*, p. 26.
3. *ibid.*, p. 27.
4. Dr. J. Robertson - E.C., 16 January 1846.

they have glorified themselves as directors; and, when the lines were in the making, often boasted of the rapid progress they were securing by their efforts and the wonderful difficulties that were being ^{rapidly} overcome: --- And, of course, now they don't relish to have it said that there were enormous evils connected with their system of proceeding which they either failed to see or shut their eyes to; and that humanity revolts at the effects, on the labourers, of such triumphs of engineering energy".⁽¹⁾

Dr. Holland also, when he talked with railway Directors, discovered "none of them would admit that they had found time to read the pamphlet --- they had got it, and would read it, but as yet they had not found time!"⁽²⁾ One of them, indeed, did find time, and Chadwick was approached one day by an excited and truculent Member of Parliament, a former chairman of the Summit Tunnel line, who declared that he knew nothing of the scandals described in the paper.

"You know what a reckless set of men they are who are employed", he said. "It would be impossible to prevent accidents in such a work".

"But you might diminish them?" suggested Chadwick.

"That I do not deny", he replied.

"And the point of my statement", went on Chadwick, "is why do you employ reckless men on dangerous works?"

There was no reply to this, and a deflated M.P. departed with the admission that it was right to publish the facts for the sake of the example.⁽³⁾

Chadwick had 2,000 copies of the pamphlet struck off at his own expense (G.C. Lewis could not be persuaded that the inquiry fell within the scope of the Poor Law Commission), and spent £30 in "billing" both Houses of Parliament and the country papers with copies.⁽⁴⁾ He gained some notable support.

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1. Dr. J. Robertson - E.C., 16 January 1846.
2. Dr. J. Robertson - E.C., 11 March 1846.
3. E.C. - Dr. J. Robertson, 28 February 1846. (The M.P. was Parker, the member for Sheffield).
4. E.C. - Pleydell Bouverie, 16 September 1846; E.C. - Col. Sykes, 28 February 1846.

Dickens, he heard, was greatly impressed; J.R. Porter drew the subject to the attention of his chief at the Board of Trade ⁽¹⁾; Lord Campbell assured him that legislation could not be long delayed, but at the moment Corn only was attended to. ⁽²⁾ But from Sir Robert Peel there came only polite acknowledgment. "He fears that the accounts sent by Mr. Chadwick as to the demoralisation which is the Result of such Employment have but too much foundation --- but no satisfactory solution of the great difficulties which would attend Legislation on such a Subject has at present occurred to Sir Robert Peel". ⁽³⁾ It was the old familiar do-nothing note; a frigid recognition of the evil coupled with a much warmer appreciation of the obstacles in the way of doing anything to remove it.

"The poor Surgeon who furnished the Tables is in a sad plight", Robertson reported, "having been written to, called upon and threatened with every kind of punishment for having, as they say, shamefully betrayed his employers in having given the Statistical Society Tables of accidents. I had such a letter yesterday from poor Pomfret the Surgeon in question, that I was constrained (though I had been out professionally in the night) to go over to Hollingworth early this morning on purpose to console him. I found things even worse than I supposed --- his wife's uncle is one of the Directors of the Sheffield railway, his father-in-law a large proprietor, and many of his friends besides interested parties". ⁽⁴⁾ Nicholson, the contractor for the Summit Tunnel, a "crafty, energetic, and plausible" man, published a pamphlet in its defence, the chief argument of which was that there had been only 26 fatal accidents, not 32; and that a far greater number had been killed on other works of similar magnitude, at Kilsley Box, for example, Clay Cross, and the Leeds Summit Tunnel. ⁽⁵⁾ Advocacy

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1. E.C. - Dr. J. Robertson, 27 January 1846.
2. Lord Campbell - E.C., 26 February 1846.
3. Sir Robert Peel - E.C., 16 December 1845.
4. Dr. J. Robertson - E.C., 30 March 1846.
5. Dr. J. Robertson - E.C., 20 April 1846.

of this nature was double-edged, and Chadwick welcomed an opponent who, in making his own face white, threw a strong light on the blackness of his fellows. He was delighted also when Directors, with an air of frankness, admitted that his account was largely true, but cast the whole blame on the contractors, "who were such a difficult set to deal with".⁽¹⁾ Thus, a friend of his was told by the Directors of the Sheffield Railway how "two of the contractors, I presume they must mean sub-contractors had been killed by their own carelessness. One of these men had stuck a candle in some loose gunpowder; it blew up and killed him: the other had doubted whether a block of stone which they were hoisting was securely fastened, when he, being possibly in liquor, stood under it to see, and it fell upon him and crushed him". Chadwick commented: "It would be worth while to have enquiries made into these cases. It would shew to what sort of men lives had been committed".⁽²⁾

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1. E.C. - Dr. J. Robertson, 1 April 1846.
2. *ibid.* The more usual view among the railway Directors was expressed by Samuel Holme (- E.C., 19 February, 1846): "There can be no doubt whatever, but that the majority of accidents which occur, are the result of the recklessness and carelessness of the men themselves; and so far as my knowledge extends, I think no legislative measures will materially decrease them". Another line of criticism is illustrated by a review in the "Railway Chronicle", 21 March 1846: "Mr. Chadwick, whilst he must be allowed to possess great cleverness, and oftentimes to be on the right side of a question, is one of the least cautious of our most useful public servants Carried away by his crotchets, he deals in assumptions, oftentimes crude, and sometimes absolutely contradicted by facts Evils attendant on the condition of railway labourers are stated, and remedies proposed, for the accomplishment of which we must look, in a great measure, to directors, engineers, and contractors of railways; yet so little is Mr. Chadwick's prudence, that he treats these classes with unsufferable offence and misrepresentation. Speaking of civil engineers, he politely says, p. 23, "In no profession perhaps, is there so large a proportion of bold, rapacious quackery as in the professions of civil engineering and architecture". A pleasant way truly of insuring the co-operation of the civil engineer, and engaging his ear to listen to one's suggestions!"

The pamphlet had created so great a stir that even the unwilling Peel Government could not avert the demand for a further investigation. When Pleydell Bouverie moved on 30th April 1846 for a Select Committee, Sir James Graham raised no objection, though, as he said, he anticipated nothing very important would result from its deliberations. Joseph Hume must have voiced the private thoughts of the Government and the majority of the members when he declared that he expected that the inquiry would "lead to the conviction that the less they interfered between employers and the employed, it would be so much the better for both".⁽¹⁾

It was a most satisfactory Committee. Poor little Pomfret, the surgeon of the Summit Tunnel, defied his embattled relatives, and gave his evidence with great spirit.⁽²⁾ The engineers, most of whom had been suggested by Chadwick, were strong for Government intervention; except Brunel, who objected to putting British workmen in leading strings --- to which Chadwick retorted that they were already in strings, pulled at the hazard of their lives, by irresponsible persons.⁽³⁾ In his own evidence he made out a vigorous case for the doctrine of pecuniary responsibility. "An eminent gas engineer", he told the Committee, "was consulted as to a method of removing gas from a coal mine, so as to render the formation of an explosive mixture impossible. The plan was not adopted, because the expense was thought too much in proportion to the risk to the proprietor; the risk to the men was not reckoned. If the proprietor had been responsible, as I contend he ought to be, for all the many losses occasioned by his works, for the support

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1. Hansard, vol. 85, pp. 1323 - 5, 30th April 1846.
2. Dr. J. Robertson - E.C., 26 May 1846.
3. "Report from the Select Committee appointed to inquire into the condition of the Labourers employed in the Construction of Railways, and other Public Works, and into the Remedies which may be calculated to lessen the peculiar evils, if any, of that condition", Evidence, J. 2208. P.P. 1846 (530), xiii. 411.

of the maimed, and of the families of the killed, it would have been good economy to have incurred the expense. And suppose it had added a penny per ton to the price of coal, and suppose it had somewhat lessened the rent of the coal mine; it would have diminished misery and destitution, it would have saved lives and limbs, it would have lowered poor rates, and probably rendered mine work less dangerous; and by sheltering the men and their families from the destitution caused by accidents, it would have lowered wages without producing the ill effects of lowered wages; for it would diminish the want which wages have to meet, and we should have all the benefit without the sacrifice".⁽¹⁾

The recommendations were well up to the strength of the evidence. The Committee departed profitably from Chadwick's views in advising that the Truck Act should be extended to cover the railway labourers, and that means should be provided to enable them to recover all their wages without any set-off for goods received. There was nothing in the Act, they pointed out, to prevent employers furnishing supplies, as Chadwick had urged, and giving their workmen the benefit of large-scale purchases; but the men should have their due in coin, and should be allowed to choose for themselves whether or not to take advantage of the employer's offer.⁽²⁾ They considered, moreover, that if wages were paid in small sums at more frequent intervals occasions for riot and intemperance would be rarer. Next the Committee recommended that before a railway company should be permitted to proceed with its plans, there should be an inquiry by an Inspector from a public Board into the extent of accommodation for the labourers in the district, and the steps the company intended to take to supplement it; and the Inspector should be empowered to visit the lodgings of the men and make such sanitary regulations as he deemed necessary.⁽³⁾ It was, they confessed, a novel proposal, but they felt that the

1. *ibid.*
2. *ibid.*, p. v.
3. *ibid.*, pp. vi - vii.

State might fairly ask such a guarantee in return for the powers granted to the companies. Indeed, for the protection of those interests of health and welfare which lay outside a shareholder's perspective, the Inspector might beneficially be given further powers: to make regulations for the provision of relief to the sick and injured, for example, or to examine the facilities for education and religious instruction.⁽¹⁾

Finally, the Committee adopted in full Chadwick's proposal that the companies should be made *prima facie* civilly responsible in all cases of injury to life or limb incurred in constructing their works. This meant changing the law in two respects: first, it would remove the anomaly by which, under the existing law, liability to make redress ceased if the injury resulted in death, the claims of dependent relatives not being recognised; and, secondly, it laid the liability, not on the ganger or contractor, but on the companies, the party with the greatest power to prevent the injury and the greatest means to repair it.⁽²⁾

That the House of Commons, in which one railway company alone was said to muster 80 votes, should take action on the Committee's Report was not to be expected. "I am somewhat disappointed", wrote Chadwick to Alexander Bain a month after the appearance of the Report, "that the scope of my view in respect to the question of responsibility for accidents is not taken up in any wise by the press, or apparently conceived by the newspaper writers".⁽³⁾ Another generation was to pass before opinion would be ripe for the principles of employers' liability and workmen's compensation. But the session was marked by one small advance. Chadwick's friend, Lord Campbell, obtained an Accident Compensations Act which smoothed out one harshness of the existing law: the dependents of a workman tortiously killed were empowered to recover damages, from which

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1. *ibid.*, p. vii, xii. 2. *ibid.*, p. x.
 3. E.C. - Alexander Bain, 7 September 1846.

they had previously been barred by the maxim 'actio personalis moritur cum persona'.⁽¹⁾

In some quarters too the ~~idea~~^{thought} was planted that if the great Mr. Peto believed that he was well repaid for his outlay on chaplains and schools, and for his attention to the condition of his labourers, perhaps after all the idea was not just another of Chadwick's crotchets. Some companies set aside sums for the welfare of their workers, and sought Chadwick's advice on the best use to which the money could be put⁽²⁾;

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1. 9 & 10 Vict. c. 93, 26 August 1846.
 2. The Directors of the Liverpool and Bury Railway, for example, asked him to suggest how they could best lay out £1,000 for the benefit of their labourers. He replied characteristically: "I think you would render a most important service by setting an example of what might be done, an important moral example but that it may be effectual it should as I conceive be executed at no great pecuniary expense, or that it may be done, as I believe it may be done to a profit, considering the efficiency and speed of the execution of the work by respectable workmen attracted as I expect they would be from other parts, or what is equivalent by respectable workmen prevented leaving by irritation caused by discomfort" (E.C. - William Stuart, 31 March 1846). He advised that a notification should be circulated amongst the workers, announcing that ---
 1. The Directors were willing to provide a place where cooked and uncooked provisions might be bought. A committee of workers might examine the prices to see if they were fair and those who chose might deal elsewhere.
 2. Temporary lodgings would be erected, with beds and dining-rooms, properly warmed and supplied with hot water. A sleeping-room for a single man could be rented for half-a-crown. If the men could find accommodation elsewhere, they were at liberty to do so.
 3. Wages would be paid weekly, and if the workers wished the Company would save a part for him at an interest of 3 per cent.
 4. The Directors would provide:
 - a schoolroom and schoolmaster; and every parent would be expected to send his child at a cost of 1d. a week.
 - a reading-room and a minister; and every workman would be expected to attend church on Sunday and pay his 1d.
 - a temporary hospital and medical attendant, towards which the men would contribute 2d. a week.
 5. Men found on the works in a drunken state would be discharged. Beer was not forbidden; but no conveniences
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others began to introduce into their agreements with the contractors clauses giving more protection to the labourers, compelling payment of wages in money and at short intervals, and prohibiting truck in drink and work on Sundays.⁽¹⁾

Meanwhile, the logic of events had been driving some of the more intelligent railway directors to admit the necessity of a measure of central control. The expense of competition in the construction of duplicate lines and the struggle between rival companies for neutral territory, the controversy between broad and narrow guages, the need to determine through-rates for goods and passenger traffic --- all these were arguments for consolidation, a revision of charges, and a degree of regulation. Thus, Chadwick now found an influential ally in James Morrison, the railway millionaire and Chairman of the Select Committee on Railway Acts Enactments, and the two men worked together for the establishment of a Railway Board to control the construction of new lines and to supervise the condition of the railway labourers.⁽²⁾ Morrison carried his

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(Continued from previous page) for its sale would be offered, as they would for the sale of tea, coffee, and soups.

6. There would be no Sunday or night work unless it were absolutely necessary.

A note among Chadwick's papers shows that he was fully aware of the limited effect of such company regulations. "Much we hope will be done in the spirit of the Committee of the Liverpool and Bury Railway. But the continued accounts of fatal accidents from the falling of earthwork, of disorder and riots, preclude any reasonable expectation, that so much can or will be done voluntarily, as to supersede the necessity and duty of legislative interference".

1. "Mr. Hilditch, the barrister told me last night that in consequence of reading your pamphlet he had introduced clauses in the railway contracts he had since drawn more protective of the men than usual" (P.H. Holland - E.C., 25 March 1846).
2. J. Morrison - E.C., 29 June 1846: "I wish I could induce you to look over confidentially, the Evidence and papers and advise me upon them. I expect the Evidence will be found deficient". Another, n.d.: "All the old lines go strongly for a Board now and they want a strong one".

Railway Board after a close fight, but in the subsequent legislation⁽¹⁾ it issued as an emasculated body, with generous stipends and vague powers, which in five years "died of too much pay and too little work".⁽²⁾ Chadwick wrote in disgust to Morrison: "I saw a member of the Government, but one not in the Cabinet who speaking to me apologetically for the new railway board having no powers in respect to railway labourers, or the conduct of existing works, said Oh but they will get powers for that or any other work, only let us get the board, and then the rest will come. This is only the usual cry of expectants. "Only let us get the places and we care not what will come""⁽³⁾

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1. 9 & 10 Vict. c. 105.
2. Hadley, "Railroad Transportation", p. 172.
3. E.C. - J. Morrison, 27 August 1846. With his employment as Poor Law Secretary clearly approaching its end, he considered for a while the possibility of transferring to the new Railway Board

"You will have seen enough in the newspapers to show why I have not been able to continue assistance for your railway committee and report. I am sorry to have been driven away from the subject in which I have taken an interest, and believe that great work may be done. As the bill is at present shaped, it (is) such an one as the existing companies might have proposed; to keep clear of them and act against new and interloping schemes.

In the present unsettled state of things I am placed in a very awkward position. If the Government determine not to carry out the new poor law, or what, whether they know it or not, will be next to the same thing, continue me in a position of subordination in which I cannot act, or act efficiently, then I shall be desirous of removing. I should desire to remove to a Board for carrying out sanitary measures. But they are now giving the functions of superintending such measures to the old Board of Works and the formation of any new board is a matter of uncertainty. I am averse to leaving unfinished work. I should make some sacrifices, if there were any chance of completing the poor law organisation, but failing that which a few days will shew, I should then be willing and desirous to act in carrying out your railway work, if the places be not as they usually are filled up". (E.C. - J. Morrison, 24 August, 1846).

CHAPTER 8.

RETREAT FROM SOMERSET HOUSE.

In 1845 the "disgustingly voracious habits"⁽¹⁾ of two paupers in the Andover Workhouse, who attempted to supplement the meagre bread ration by scrapings from the green bones they were employed in crushing, led to a violent outcry in the press. The Poor Law Commissioners ordered an investigation by Parker, one of the Assistant Commissioners, and seized an early opportunity to dismiss him and make him a scapegoat for public dissatisfaction. This action brought to the surface all the submerged antipathies in that unhappy office. Rallying to his standard all the Poor Law malcontents --- Parker, Day, Coode, Tufnell --- Chadwick led an attack on the opinions and business methods of his chiefs; and the Select Committee appointed in July 1846 to investigate the Andover scandals found that an inquiry into bone crushing and the morals of workhouse masters had widened into a discussion of the whole constitution and working of the Poor Law Commission.

In the course of his nine examinations before the Committee, Chadwick skilfully planted one barb after another in the flanks of the Commissioners. The scepticism they had openly avowed of the fundamental principles of the Act it was their duty to execute; their displeasure when abuses were brought to their attention which would require action on their part; their conduct of business by conversations at casual meetings, by private letters from single Commissioners, by unrecorded transactions in their separate offices; their toleration of the allowance system, their attempt to revive the labour rate, their suppression of the Bolton and Macclesfield report --- all the accusations which had been fermenting in

Chadwick's mind for the past twelve years seethed over before the Committee. The Commissioners, aided by the Poor Law critics on the Committee, retorted in kind. An attempt was made to fix on Chadwick the full responsibility for the inadequate dietary scale in use at Andover⁽¹⁾ and for other rigorous and unpopular measures, such as the order which disallowed fees for tolling church bells at the funeral of a pauper.⁽²⁾ "Well, then, if you will have it you must", cried

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1. "Report of Select Committee on Andover Union", Evidence, QQ. 19635 - 19648, 19876 - 19901. It was a "libellous expression", Chadwick replied, to say that he recommended "coarse food" for the paupers (Q. 19880). What he had advised was "coarser food", in view of the anomaly that paupers were getting meat and white bread, while independent labourers were living on brown bread. (Q. 19893). "I have got labourers' dietaries, labourers' expenditure for their families, mechanics' expenditure for their families, and information on various points touching their own domestic economy, on which persons who undertake to legislate are often the very worst informed. I believe I was the first person engaged in any official investigation of that description; I am aware of no one who had ever inquired of labourers themselves, or visited their houses, or inquired of them to anything like the extent I have done from time to time" (Q. 19812). "Of this I am quite certain, from my knowledge of the labourers, that if a dietary were settled by them on the principle of making an allowance to the members of benefit societies, to persons who are on the box of benefit clubs, they would not exceed, and I think generally would certainly be below the allowances given in workhouses" (Q. 19644). The dietaries had been drawn up on the principle that the supply of food should be sufficient to maintain health and strength, and that plain food, such as potatoes or oatmeal, should be given ad lib. (Q. 19876). Much of the outcry against the workhouse dietaries, he believed, was due to sheer ignorance of what the lower classes were in fact obliged to eat. Thus, when John Walter alleged that it was the intention of the Poor Law Commission to reduce the diet of the working classes, Chadwick replied by quoting reports to the effect that the dietary scales of workhouses were more generous than those budgeted for by independent labourers. "One or two hundred pounds would be well expended in getting the scale of expenditure of different portions of the labouring classes in different parts of the empire" (E.C. - J. McGregor, 12 March 1845).
2. *ibid.*, Q. 22334 (T.F. Lewis).

Frankland Lewis, "Mr. Chadwick was an able man, but I thought him as unscrupulous and as dangerous an officer as I ever saw within the walls of an office".⁽¹⁾ It was the petulant rage of a little man; but it served to add one more touch to the picture of Chadwick as a kind of Poor Law Inquisitor, Disraeli's "monster in human shape", who sat in his torture den in the recesses of Somerset House, devising fiendish new plans for separating old men from their wives, spaying the daughters of the poor, and slowly starving paupers to death on a diet of bread and gruel. Chadwick, it would appear, immediately challenged Frankland Lewis as to the truth of his wild outburst, and he received sufficient amends for the two to part with a friendly handshake. The Commissioners could not really have it both ways: if they kept the business firmly in their own hands, as Frankland Lewis claimed, allowing their officers to make no suggestions⁽²⁾, then Chadwick could hardly be held responsible

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1. *ibid.*, Q. 2260. He made it clear later that he did not intend "unscrupulous" as a general stricture on Chadwick's conduct, but only as a description of his actions with reference to two documents: - (1) Instructions to overseers and churchwardens in March 1836, relating to the legality of certain charges on the poor rates, which contained the disallowance of fees for tolling at pauper funerals; (2) a Consolidated Order issued to the metropolitan Unions, in October 1835, which, Lewis asserted, led to a rebellion in the parish of St. George-the-Martyr, "almost the first thing which excited vehement dislike to our proceedings". (Q. 22335)
Of the former document the Hammonds write "Chadwick trod on this universal sentiment as if all life had gone from it" ("Age of the Chartists", p. 75). There seems no reason, however, to doubt Chadwick's statement that the regulation was inserted by Coode into his draft; and that he had urged the Commissioners to obtain statutory authorisation for this and other charges (Q. 24999). On plain issues of fact, such as dates and the report of evidence, he was as punctilious as his legal training could make him --- and this remains true, even if it be admitted that at times he also showed the lawyer's skill of advocacy in his manipulation of those same facts.
2. ".... out of whose hands, I may almost say, I was instructed (but at all events I expressly undertook) to keep it". (Q. 22328).

for the harshness of Poor Law administration. Indeed, as Chadwick pointed out, of all the papers attacked in the House of Commons only one was by him; he had therefore complained to G.C. Lewis how unjust it was that all the unpopularity fell upon himself --- to which Lewis had replied that he would get no redress if he applied for it.⁽¹⁾

The report of the Committee was a severe condemnation of the Commissioners' part in the Andover affair.⁽²⁾ Chadwick read it with a triumph he made no attempt to conceal. He had been the principal actor before the Committee, he reflected, and had repulsed all his assailants in turn; and yet he had brought up none of his reserves, "which are heavier than my adversaries or the public suppose".⁽³⁾ His momentary elation at the rout of the Commissioners, however, soon gave way to dark conjecture about the future of the Poor Law Act --- and the

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1. *ibid.*, QQ. 20021, 20024, 20030. Echoing the Parliamentary critics, historians have in general much exaggerated Chadwick's power to influence the course of Poor Law administration. Thus, it has been asserted that "the history of the Poor Law between 1834 and 1847 is the history of an experiment in centralised administration, and of what that experiment produced in the hard and energetic hands of Chadwick, checked from time to time, by wiser colleagues" (J. L. and B. Hammond, "Age of the Chartists", p. 60). It seems sufficient to comment that this gives a totally unfounded impression that the "experiment" was under his control; that the "colleagues" were, in fact, his superiors; and that they may be acclaimed as "wiser" than he only if their sceptical attitude to his preventive policies is ignored.
2. The Committee reported that the Commissioners had not given encouragement to their subordinates in the detection and removal of abuses; that Parker had carried out his inquiry with ability and promptitude, and that the manner of his dismissal gave him just cause for complaint, and was inconsistent with the discreet exercise of the Commissioners' power of dismissing their officers; that they had altogether failed to justify the removal of Day (who had been earlier dismissed by them); and that the proceedings with regard to both Day and Parker were irregular and arbitrary, were not in accordance with the statute, and were such as to shake public confidence. (Report, pp. viii - x).
3. E.C. - Sir Charles Shaw, 4 September 1846.

future of its author --- when the Bill for the continuance of the Commission should come under discussion in the following session. "The anti poor law members of the House of Commons have expressed reluctance to have the Commissioners immediately removed, for say they if we delay their removal we may get rid of the law and themselves together at the next session of Parliament", he wrote anxiously to the Earl of Liverpool. "You may observe that the Times is taking the course of declaring that the fault is not with the Commissioners but with the law: that it is a law which it is impossible for any one to execute".

(1) Nor, looking more closely at the printed evidence of the Andover inquiry, was he satisfied that it conveyed the right impression. If it blackened the reputation of the Lewises, the character and opinions of Edwin Chadwick did not in contrast shine forth so brightly as he had hoped. But Sir George Grey, the new Whig Home Secretary, remained deaf to Chadwick's ^{plea} that he should be permitted to make a full public statement in self-vindication. (2) His fears increased. Was not Cornwall Lewis

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1. E.C. - Earl of Liverpool, 24 August 1846.
2. In a letter to Sir George Grey, 17 January 1847, Chadwick pointed out that the Report omitted to mention the admission that separate action by the Commissioners was legally indefensible, and failed to emphasize the importance of the documents printed in the Appendix, which Chadwick had put in as evidence --- his report on Bolton and Macclesfield; his paper on the ineligibility of bone crushing as a workhouse test; the condemnation by the Treasury of modes of business similar to those employed by the Commissioners. His chief complaint, however, was that no opportunity had been given to him to answer the aspersions cast upon him during the examination.

"Before the Andover Committee I was examined, or cross examined, by a member of the late Government, as if I were a criminal for having as a member of the Commission of inquiry prepared for the information of the Government the draft outline of the remedial measures which the Commission had adopted and also for having had a principal share of the exposition of principles and measures in the general report placed before the public and the Legislature and which were adopted as the basis of the Poor Law Amendment Act The libellous tone of aspersion cast upon me before the Andover Committee has been publicly renewed since the Committee has

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married to Lady Teresa Lister, one of the Villiers, sister of Lord Clarendon and sister-in-law of Lord John Russell, "a lady who invites Senior to the most fashionable parties"?⁽¹⁾

"In such a country as this, with a position to maintain amongst public men of aristocratical connexions, it is not easy to contend without pecuniary resources to fall back upon", he confided to an American cousin. "And my family drains and various pecuniary losses other than the American have given me more anxiety than the conflict itself. The Government have to decide upon the case, but my chief opponent is the brother-in-law of Lord John Russell, and Lord Clarendon two Cabinet Ministers and two others. Lord John Russell I have cause most to distrust because he has dealt unjustly towards me, and to condemn the commissioners will be to condemn the arrangements to which he was a principal party. The public however are I believe with me"⁽²⁾ To another friend, Edmund Ashworth, the cotton manufacturer, he wrote, "Though unassailed or unshaken and victorious upon every point of attack, yet defeat is by no means without producing its effect on powerful members of the Cabinet, the friends of the defeated parties: and it is by no means improbable that I may be driven to make an appeal to the country"⁽³⁾

Relations at Somerset House were now extremely strained, with Chadwick muttering in his office and the Commissioners caballing against him with the Whigs. A chance encounter in the street with Frankland Lewis led to a scene as violent as that before the Andover Committee; and one, moreover, which did

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(Continued from previous page) closed. Your predecessor had led the way by an imputation directed against me in Parliament of having made the law unpopular by "harsh writing" in the correspondence of the office which was entirely under the control of the Commissioners which was not drafted by me and in the preparation of which I had from the first remonstrated".

1. E.C. - W.E. Hickson, n.d.
2. E.C. - Andrew Boardman, 3 October 1846.
3. E.C. - Edmund Ashworth, 26 January 1847.

not end in a handshake.⁽¹⁾ Russell and Clarendon, he was told, had a majority with them in the Cabinet determined to uphold the Commissioners against the report of the Andover Committee⁽²⁾; and "Lady Teresa was in good spirits".⁽³⁾ "If I am not put down", he reflected bitterly, "three carriages must be put down which have been kept up on my labours whilst I have walked".⁽⁴⁾ Restlessly he fingered the strands of that dirty little tangle: "the obligations to truthfulness on the part of official superiors; the unscrupulous mendacity of Sir James Graham; the demoralising effect of the disregard of law by officers specially charged with its execution; the contemptuous setting aside of the author of the measure; the violation of the old rule that he who devises shall execute".⁽⁵⁾ It was, he felt, quite another Rowland Hill case --- but Edwin Chadwick had had three Colonel Maberlys to deal with.⁽⁶⁾ The difficulty was (though Chadwick was scarcely the man to realise it) that in producing evidence of the laxity of the Commissioners he was only strengthening them in public esteem; and in proving that they had not executed the Poor Law Act, he was inviting the retort that that was all to the good.

Looking at the new year with rheumy eyes (he was "unwell and very deaf"⁽⁷⁾), Chadwick considered the political prospects anything but bright. "Nothing is known of the intentions of the Government", he told the Earl of Liverpool as the 1847 session opened. "My own position is most anxious and unpleasant, and if the session does not make an end of it some how I shall be driven to do it myself".⁽⁸⁾ Sir George Grey and Lord Morpeth had not consulted him about the instructions

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1. E.C. - W. Christie, n.d.
2. E.C. - E. Gulson, n.d.
3. E.C. - W. Christie, 7 February 1847.
4. E.C. - W.E. Hickson, n.d.
5. E.C. - W.E. Hickson, n.d.
6. *ibid.*
7. E.C. - Dr. P.H. Holland, 2 January 1847.
8. E.C. - Earl of Liverpool, 13 February 1847.

just put out by the Woods and Forests on the conduct of inquiries into local improvement schemes.⁽¹⁾ This was an oversight, if it were not intended, and an insult if it were; in either case, it boded ill, especially when considered in connection with the attitude the Government was likely to take in Poor Law matters.

(2) "I now get no acknowledgment of anything I send: and yet outward deference is expressed to my opinion, and yet I am complimented in the opening speech of the session by the Hon. Charles Howard!"⁽³⁾ His fears seemed justified when, in the debates on the Poor Law Amendment Bill, Lord John Russell came out strongly in support of "the Lewis interest", and piled all the discredit which hung around that unpopular measure upon the shoulders of their intriguing Secretary. Vainly Chadwick tried to awaken in his Parliamentary friends a sense of their responsibility towards himself and the reformed Poor Law. They retained an adamant and cheerful confidence that right views would prevail and justice would be done to Edwin Chadwick without any necessity for putting themselves out to assist that desirable consummation.⁽⁴⁾ "This Government is renowned for its facility in abandoning all measures and all men", Lord Brougham agreed heartily.⁽⁵⁾ "You may see that D'Israeli bantered Lord John about you, but it was all done in a good humoured jocose tone, and can do you no harm", Poulett Scrope reassured him.⁽⁶⁾ Pleydell Bouverie would have pointed out to Russell the absurdity of blaming Chadwick for irregularities over which as Secretary he had no control --- if only he had thought of it at the time.⁽⁷⁾ George Nicholls wrote a testimonial to his exemplary conduct during the fourteen years

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1. Under 9 and 10 Vict. c. 106; see above, p. 255.
2. E.C. - Dr. P.H. Holland, 2 January 1847.
3. E.C. - Charles Clark, 20 January 1847.
4. "I am at the mercy of accidents and of friends who certainly are as I feel under a false confidence which I cannot dispel" (E.C. - W.D. Christie, 17 June 1847).
5. Lord Brougham - E.C., n.d.
6. J. Poulett Scrope - E.C., n.d.
7. E. Pleydell Bouverie - E.C., 23 May 1847.

they had worked together, and when it was read in the Commons several other gentlemen were moved to add their mite of approbation.⁽¹⁾ "Altogether, at the close of the discussion your name stood clear from reproach, and most honourable testimony was borne to your public service"⁽²⁾

All this was highly gratifying, but the Lewis interest remained firmly entrenched, and the Government seemed in no mood to make a public profession of error. They gave ear instead to the speech of Charles Villiers, who, though a brother-in-law of Cornwall Lewis, "has the indelicacy to come forward in the guise of disinterested advocacy", and decry Chadwick's "wrongheadedness".⁽³⁾ This was the pliant politician, Chadwick recalled, who had expressed protectionist views in his report as Assistant Commissioner during the Poor Law inquiry of 1834, and had stood as a free trader at Wolverhampton in the following year.⁽⁴⁾ "Having been induced to withhold all representations", he told Grey severely, "I have been extremely surprised to find myself treated as an accuser who has failed in his proofs and blamed amongst other things for not preferring authentic representations".⁽⁵⁾ And again, with a note of deepening indignation: "I regret that I must not accept gratifying praise and testimony for the performance of other duties not in question, as compensation for seriously unjust blame leading to erroneous measures on proceedings on the question of Poor Law administration".⁽⁶⁾

In this truculent mood he began to draw up his Grand Remonstrance. The "Letter of Edwin Chadwick Esq. in vindication of his conduct to the Right Honourable Sir George Grey" was a wordy, argumentative, and execrably written paper,

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1. G. Nicholls - E.C., 27 May 1847.
2. J.G. Denison - E.C., 17 June 1847.
3. E.C. - Lord Ellesmere, 15 July 1847.
4. *ibid.*
5. E.C. - Sir George Grey, 16 June 1847.
6. E.C. - Sir George Grey, 24 June 1847.

with seven appendices, and a mass of facts carefully verified by the evidence of the Assistant Commissioners.⁽¹⁾ It recited the history of his protests against the Commissioners, and outlined the course of preventive administration which he had designed and they had done their best to frustrate. Lord John Russell had told the House that Chadwick had discouraged the Assistant Commissioners from revealing the abuses in their districts; the truth was, Chadwick replied, that it was the Assistant Commissioners who had complained to him of the coolness with which the Commissioners had received their representations.⁽²⁾ Dissatisfaction, he alleged, was "at various times almost general" amongst the officers of the Commission.

⁽³⁾ And he himself had certainly not been remiss in the duty of making formal representations to the Home Secretary. He had addressed complaints to Russell and Lord Normanby; and, through Lord Liverpool, he had attempted to get an interview with Graham --- who had declined to see him.

Chadwick backed up his own case against the Commissioners with a long and lively letter from a former Assistant Commissioners, E.C. Tufnell, who confirmed the correctness of the impression Chadwick had given to the Andover Committee. Both Cornwall Lewis and Edmund Head, Tufnell asserted, were "literally without a particle of moral courage. A depreciatory paragraph in the newspaper seemed to fill them with the direst

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1. 21 June 1847.
2. But the recollection of one Assistant Commissioner, to whom he appealed for support, did not agree with his own. He reminded the Hon. Charles Clements how he had come to Lancashire from Ireland to find it "one vast Augean stable of abuses"; "and you subsequently were compelled in consequence of the discouragement you had received to leave it so" (2 June 1847). He received a very frigid reply. Clements could not recall what he had said, but he was sure that it did not justify Chadwick using his name as he had before the Andover Committee (7 June).
3. "You have seen it represented that I was the only discontented person in the Commission. The fact is that there was not any person who had any anxiety for its success and any understanding of principle who was not discontented" (E.O.:- Bishop of London, 30 June 1847).

alarm, and they were ready to sacrifice any subordinate officer, or any principle of the Law it was their duty to enforce, to appease a newspaper clamour or the demands of an anti-poor law agitator". Though he considered Chadwick went "too far and too rapidly", he paid a handsome tribute to Chadwick's method of careful personal investigation as compared with the "tortuous" modes adopted by the Commissioners. "Whatever you proposed, you never seemed willing to have your proposals put in final execution, without hearing and discussing every objection that the Assistant Commissioners could bring against them. I could rarely get Messrs. Lewis or Head to pay the slightest attention to my representations of what I deemed the impropriety of any course they were pursuing. My objections were generally pooh-poohed in not the most courteous manner".⁽¹⁾ Edmund Head's idea was to get things done by finesse and indirect ways. "I remember being excessively disgusted at his sending me a long paper to show the advantage of attending to anonymous communications which I think ought to be put in the fire without being read I have seen the foulest slander circulated by the Commissioners on anonymous authority". And, in fact, he believed that Day had been dismissed on the strength of a letter from a person who desired that his name should not be divulged.

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1. E.C. Tufnell - E.C., 28 May 1847. "My chief objection to the Commissioners' public conduct", wrote Tufnell, "arises from their neglect of the law they were appointed to enforce. Their sole object for the last few years seems to have been to endeavour to cull popularity by acting the "poor man's friend" It was perfectly clear to me, that what was always uppermost in their minds was not how they should best perform their duty, but how they should appease the Times Newspaper, and mollify by concession all the objections of the anti-poor law agitators". About the Poor Law Act itself, he observed: "I was for nearly eleven years engaged in superintending its operation in the most pauperised parts of England --- in districts where the change made by it was most violent, and am familiarly acquainted with its action in 130 Unions. I think I may, without vanity, lay claim to as much practical acquaintance with its working as any man in England; and I unhesitatingly affirm, that it did produce, whenever fairly put in

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Chadwick's friends --- among them the Bishop of London, the Duke of Richmond, Lord Liverpool, Lord Fortescue, Lord Lansdowne, Lord Ellenborough, Lord Radnor --- read the draft of his letter; they read Tufnell's letter with its corroborative evidence; they assured him that he had an excellent case --- but no two of them were agreed as to the steps he should take to obtain redress. "Such a letter ought to satisfy any statesman of his good fortune in having the writer of it at his disposal", said John Mill, "--- but whether any of these men have sufficient brains to appreciate brains in another, remains questionable".⁽¹⁾ It was now quite clear, however, that the jury had pronounced its verdict, though it was in cool defiance of the judge's summing up. The Government had made up its mind, and decided on its course, and no representations, however authentic, could now change Russell's attitude. The debates on the Poor Law Bill had closed without any retraction of the slurs on Chadwick's motives and conduct, and that "mass of error and delusion", Frankland Lewis, was still disseminating the statements which he thought he had refuted once and for all before the Andover Committee.⁽²⁾ Whoever was to form the

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(Continued from previous page) operation all the good its authors promised --- that the condition of the labourer was immensely improved by it, that his earnings were increased, that the amount of work provided for him was largely augmented, and that in innumerable cases it was the direct cause of providing constant employment to workpeople who were previously turned adrift on the parish on every shower of rain". He had been aware some time before he resigned that the Commissioners regarded him as a "dangerous character", and he had retained his post for one reason only --- so that he might devote his salary to maintaining the Normal School he had established. "Had I resigned, I should have been compelled to break up that school, as well as faith with many of the students who had entered it, and persons who had contributed to its support The only person connected with the office, who when asked to subscribe in support of that school, positively refused to give a farthing, was Sir Edmund Head".

1. J.S. Mill - E.C., n.d.
2. E.C. - Lord ?, n.d.

reconstructed Poor Law Board, it seemed that Edwin Chadwick was not to be of their number, though a friendly Lord might wonder "who upon earth is to rule at Somerset House to be St. Sebastian (who was martyred by being shot at with Pagan arrows) in each house of Parliament?"⁽¹⁾ In a shabby statement the Government had even declared that he had no claim to be considered for the grant of a pension. To Lord Ellenborough he wrote bitterly, "As the bill at present stands it might be intituled "An act to enable the Government to dismiss without reasons assigned, those who otherwise cannot be removed without justification or compensation.. If during fifteen years I had held a sinecure office, or an office of ordinary routine, a removal without compensation would not be thought of or tolerated".⁽²⁾ A few days before the Health of Towns Bill, his life-boat, had foundered in the Commons. The future looked grim that July.⁽³⁾

It was time, he felt, to unmask his batteries. "I shall

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1. Lord Lovelace - E.C., 2 October 1847.
2. E.C. - Lord Ellenborough, 12 July 1847.
3. His uncertainty about the future at this period is illustrated by a couple of notes: (1) to John Walter (n.d., marked "Written before the Third Reading of the Poor Law Administration Bill") --- "The last night in the House of Lords saw at the least the close of the present Poor Law Board and possibly of my public services Whether I shall return to public service may be doubtful". (2) An undated and unaddressed note --- "My connexion with the poor law and public office may now however be said to have ceased: whether it is to be renewed which will be by no change on my part or I return to my professional endeavour is yet to be seen".

At this crisis in his fortunes, as in 1837 and 1841, his thoughts turned again to the possibility of a seat in Parliament. "I should for the sanitary measures and on other grounds be glad to get in but I cannot spend money", he wrote to J.B. Burton, 24 July 1847. "I was offered a place in England some days ago but I could not incur the expense". For a time, though not too seriously, he seems to have toyed with the idea of contesting Edinburgh, where the scholarly Macaulay should have as an opponent "not a mere common place shopkeeper" but somebody "intellectually respectable", such as John Mill --- or Edwin Chadwick.

certainly not consent to removal however without reasons assigned and an opportunity of vindicating myself. It is not to be endured that the tried, and upon their own hearing the convicted are to be maintained and the person whose measure has been frustrated, disgraced and set aside".⁽¹⁾ Hitherto his "Vindication" had circulated only amongst his personal friends, but now he began to prepare it for publication. He even contemplated legal action against the Poor Law Commissioners, and drew up "Heads of Representations or Articles of Charge against George Cornwall Lewis Esquire and Sir Edmund Head Baronet for acts of Malfeasance of Nonfeasance and Misfeasance in the performance of the duties of their office as Commissioners under the 4th and 5th Will. IV. c. 76 and other Acts for the relief of the poor".⁽²⁾ At once he ran into the difficulties which must confront any Civil Servant who proposes to break the triple vow which binds his order to silence, anonymity, and obedience. E.C. Tufnell declined the honour of appearing as a leading witness in any public scandal, and imposed a ban on the publication of his letter. Hew was too late, however, to prevent Lord Brougham reading extracts from it in the House of Lords. There was an immediate outcry that this was a breach of official confidence. "Can any one help deep disgust", wrote Chadwick to Brougham, "that there should be no feeling of concern, for immense mal administration affecting large masses, positive breaches of law and disastrous misconduct, which ought to have been the subject of judicial inquiry and impeachment, and no feeling for the sacrifice of an able officer like Mr. Parker, but affected horror at an accidental revelation of one part of the misconduct, by the removal of a barrier of privacy or confidentiality which is a misprision and public offence ever to have imposed. The official confidentiality and honour I have only found to come within Dean Swift's simile of conscience as being like a pair of

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1. E.C. - Lord ?, 3 July 1847.

2. n.d.

breeches, a garment made to conceal lewdness and nastiness and readily let down for the convenience of either".⁽¹⁾

Reviewing Chadwick's correspondence relating to this period, one is struck at once by a remarkable omission. Nowhere is there any hint of his views on the decision to put the Poor Law office under a Parliamentary head. He appears to have seen the whole problem of Poor Law administration in 1847 as a personal, not a constitutional crisis; the principles of 1834, personified in their author, Edwin Chadwick, were arraigned against the pernicious policies of the Commissioners; the Lewises, from the powerful shelter of Ministerial friendship, were plotting to hurl him from his Secretaryship. Chadwick would undoubtedly have agreed with Bagehot that year by year the central department was getting more and more feeble, that the corrupt interests in the localities, with their spokesmen in press and Parliament, were gradually wresting the control of Poor Law administration from its impotent grasp; it is equally certain, however, that he would have denied Bagehot's assertion that this was due to the intrinsic weakness of the machinery he had devised, a weakness which could be removed only by putting the department under an "official and party protector in the House of Commons". "If Sir George Lewis and Mr. Chadwick could not maintain an outlying department in the face of Parliament, how unlikely that an inferior compound of discretion and activity will ever maintain it!", wrote Bagehot at the conclusion of his classic analysis.⁽²⁾ The weakness of the Poor Law bastion, Chadwick would probably have replied, lay in the fact that its garrison was ill chosen; it was manned by men who had doubts of the position they were supposed to defend, and who treated as a mutineer the most powerful champion of the reformed Poor Law. The remedy, the only remedy, was to give Edwin Chadwick a free hand: "if I had had proper support I would have reversed the picture and by this time have had the law popular,

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1. E.O. - Lord Brougham, 13 July 1847

2. W. Bagehot, "English Constitution", World's Classics, p. 167.

district industrial schools established and the rates full one million lower".⁽¹⁾

A truculent Civil Servant, with a grievance, the makings of a case, and a following in the country, could not have been too pleasant a thought for the Whig Government. He would be a nuisance and a bore, if he were not a danger. So it was timely in more than one sense when the Prime Minister decided that Chadwick might profitably occupy himself with an inquiry into the sanitary condition of London. To the reasons for that inquiry, and to Chadwick's other activities in 1847, we must now turn.

Chadwick's great hope at the beginning of the 1847 session was that his ten years of investigation and inquiry would at last bear legislative fruit. But the Public Health Bill, which Lord Morpeth introduced on the 30th March, was not Chadwick's Bill, though it displayed extensive evidence of the influence of his Reports and memoranda and of the criticism which the sanitary reformers had directed at Lord Lincoln's abortive measure. It was understood --- though by no means was it promised by the Government --- that he would be offered a place in the new administrative arrangements; and it was mainly with an eye to his own freedom and power of action that he looked over the clauses of Morpeth's Bill. The central authority was to be a "Board of Health and Public Works", composed of five members, three of whom would be paid, with the First Commissioner of Woods and Forests as president.⁽²⁾ Thus,

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1. B.C. - Duke of Richmond, 6 November 1847. His views on later developments under the Poor Law Board may be illustrated by his statement that "since the change was made from an undivided attention of real Boards to the divided attention of changing political chiefs and to Boards of members whose attention is and can be only formal and nominal, the administration has retrograded; in poor laws most disastrously..." (MS fragment, n.d.)
2. Hansard, vol. 91, p. 624, 30 March 1847.

Lord Lincoln's proposal to bring the public health under the aegis of the Home Secretary was abandoned in favour of machinery modelled on the recently established Railway Board. The lesson of the discredited Poor Law Commission had not yet been digested; the new Board would have a Parliamentary spokesman, (even two, as the other unpaid member might well be a Member of Parliament) but the First Commissioner of Woods and Forests, though sitting as president, was in no sense a ministerial head, since he shouldered no more responsibility for policy than any other member of the Board. The weakness and inadequacy of this arrangement were to be sharply revealed when the General Board of Health later came under the presidency of Lord Seymour.⁽¹⁾ It meant, moreover, the end of Chadwick's visions of himself working the Public Health Act as standing counsel or secretary to a Committee of the Privy Council, and with considerable misgivings he looked forward to a Board on which he might find himself in the company of uncongenial fellows. In the local machinery, too, the Bill turned its back on Chadwick's recommendations. In corporate towns the town council would exercise sanitary powers; in non-corporate towns the members of the local authority would be elected by the ratepayers, with the exception of a certain proportion, not to exceed one-third, who would be nominated by the central Board. The local authority

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1. S.B. Gael, a Parliamentary counsel, sent Chadwick some acute criticisms of the Bill in a paper entitled "Observations on the Health of Towns Bill 1847 and the Towns Improvement Bill incorporated therewith".

"If the President of the Woods and Forests can attend to this", he asks, "why not his Brethren without having new Commissioners? If he can't attend to it why is he made a member of the new Commission? If a President be required why should the Commissioners go to the Woods and Forests for him?"

But what is the President above his fellows? Of this the Bill tells us nothing and we cannot guess. Perhaps as an organ in Parliament. But then none of the Commissioners are prevented from sitting in Parliament, and if one gets in he would be much better qualified to defend the acts of his Commission than the Commissioner of the Woods and Forests.."

would be set up by the central Board after a local inquiry, in which the district coming within its jurisdiction would be defined; and should it be considered necessary for the purposes of the Act, the central Board might extend the existing boundaries of the towns. Powers over drainage, street cleansing, building construction, and nuisances were to be exercised by the local authorities through the agency of a surveyor and an inspector of nuisances. They could construct water works and gas works --- a notable deviation from Chadwick's recommendation that these services should be carried out by contract with private enterprise.⁽¹⁾ On the financial arrangements, however, his arguments had had more effect. "It is this question of rates which has hitherto been the direct, and for some time to come must be, I fear, the indirect obstacle to the inhabitants taking up sanitary measures with vigour and good heart themselves", Morpeth declared. "There is something in the very sound of 'rates', which weighs fearfully in the balance against health, industry, content, and all the virtues". As Chadwick had urged, the burden would be eased and the obstacle lowered by granting powers to the local authorities to raise loans on the security of the rates, the principal to be recovered from the occupiers by instalments spread over thirty years.

In the ensuing debate Lord Lincoln objected that the Bill introduced too strong an element of centralisation, and that the title of the Board seemed to foreshadow functions more extensive than those described by Morpeth. He repeated the suspicion of town councils voiced in the Health of Towns Report: the suburbs of the great manufacturing towns were so wide that the municipal

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1. "Not a tittle of the facility recommended by the Commissioners (sc. Health of Towns) to be given is by the Bill given. The framers do not seem to comprehend that part of the subject at all Unlike Mr. Hawkesley and other experienced judges and the Health of Towns Commissioners the Framers of the Bill seem to be unfavourable to the agency of Companies" (S.H. Gael, op. cit.)

jurisdiction did not cover their whole area (two-thirds of Nottingham, for example, lay outside the existing municipal boundaries); moreover, the corporations were strongly political in composition, and an opposition party would look with distrust on powers of taxation in the hands of the majority. ⁽¹⁾

The measure was pushed through its Second Reading and the motion for Committee, however, by comfortable Government majorities; and then the critics took command of the field. It was a very vulnerable Bill. Critics could bang away with the cheering certainty of doing damage to one or other of its rambling outworks. A provision which incorporated the Bill with the Commissioners Clauses Act involved the consideration of some seven hundred clauses, and six other Acts were also brought in by this summary but exasperating method of cross reference. Presently Morpeth found himself engaged in a brisk contest over every clause, occasionally rising to a more extended struggle on the broader ground of general principle, such as the inalienable rights of every middle-class Englishman and the tendency of all Governments to job. From the first the Bill was "the object of singular Protectionist aversion" ⁽²⁾, and in Committee spokesmen of the landowners strongly opposed a measure which might burden them with taxation for municipal improvements ⁽³⁾ "The country

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1. Hansard, vol. 91, pp. 638 - 642, 30 March 1847. "It would puzzle a person to give any satisfactory reason why Corporations the Members of which are all elected should be thought competent to manage the affairs of Health while the elected Commissioners of a town are not to be trusted without the association of Crown Commissioners What is there in Municipal machinery to render it necessary or suitable for the purposes of the Bill? There is no advantage it is apprehended in having a Board of above seven or ten Members; and materials for this may be everywhere had without new Elections or extension of Corporation authority Their unfitness is not merely owing to ignorance but to the bias etc. of their position, and of the two Corporations have more of this untoward tendency than the Town Commissioners would be likely to have" (A. S. Gael, op. cit.)
 2. "Times", 3 July 1847.
 3. Hansard, vol. 93, p. 716 (Divett), p. 717 (Buck), p. 728
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was sick of centralisation, of commissions, of preliminary inquiries --- of all sorts of jobs", cried Hudson, the Railway King. "The people wanted to be left to manage their own affairs; they did not want Parliament to be so paternal as it wished to be --- interfering in everybody's business, and, like all who so interfered, not doing its own well".⁽¹⁾ It was the crude "Hands off!" of the self-sufficient capitalist; and it was strengthened by an older argument from the eighteenth century when Colonel Sibthorp exclaimed against the appointment of Commissioners under Government patronage. "He objected also to their being salaried, entertaining a strong feeling that if they had not patriotism enough to give their services for the good of their country, they were utterly unworthy of so important a trust. He objected also to the appointment of three inspectors. These things led to a great deal of bribery of a peculiar kind; and he had served long enough in that House to be extremely jealous of all Governments, whether Whig or Tory. They all could, and did, do a great deal behind the scenes; and there was a great deal of secret service money spent".⁽²⁾

In the country at large the Bill caused little noise. True, 32,000 signed petitions in its support, and 287 sent resolutions against it; but apart from this minority the public did not seem greatly concerned about the defence of its own health. Chadwick sent some notes on the Bill by Southwood Smith to a friendly editor⁽³⁾, and added the tart comment. "Admitting the justice of of the Rajah of Suttaras claim and of

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(Continued from previous page) (Newdegate). In answer Brotherton pointed out: "Honourable members connected with those districts were very sensitive; but he could tell them that in the suburbs of large towns, landowners had derived great advantages from the industry of their neighbours, and he knew cases where landowners had their incomes advanced from £5,000 to £20,000 a year, without doing a single thing to promote the welfare of the inhabitants by whom they were so much benefited".

1. Hansard, vol. 93, p. 743, 13 June 1847.
2. *ibid.*, p. 727.
3. E.C. - ? ~~xxxxxx~~ the "Times"), 7 July 1847.
probably

the Portuguese and of delinquents, I must say that the condition of the population would seem to have a right of precedence". There was a thin crop of pamphlets, bearing on the title page the trend of their argument, and in their contents plain evidence of their origin. "A Townsman" of Worcester wrote a "Letter to Lord Morpeth on the Health of Towns Bill; involving an outlay of 50 to 100 millions --- an annual charge of 10 to 20 millions, with a countless host of Government creatures and dependants --- showing that it ought to be withdrawn, and an entirely new sanitary measure introduced, omitting its violent and arbitrary powers, especially the power of taking in suburbs and creating new districts --- that the local powers should be given to bodies distinct from the Town Councils --- and that strict accounts should be kept of returns from the sale of sewerage, and their application be subjected to the controul of the central authority"; while another writer, whose interest is not difficult to divine, put forward his "Reasons against the Legislature granting to the Crown an extraordinary Power, discordant with the Principles of the Constitution, of coercively ordering the Population of Places and Parishes in Counties at large to be incorporated with the adjoining Borough: or to be included in the enlarged boundaries of any Town (or District) "for all purposes" s. 19 - 23 --- and so subjecting County Parishes to all Municipal Jurisdiction, Debts and Corporate Burthens, and seriously affecting the Interests of Owners of Property and Ratepayers in County Districts by an alteration and disturbance of the ancient and known Parochial Boundaries and consequent new distribution of Rates etc."

In the hope of getting the Bill through before the end of the session, the Metropolitan Sanitary Association urged Morpeth to make concessions.⁽¹⁾ London was dropped from the Bill⁽²⁾;

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1. Hansard, vol. 93, p. 1177, 2 July 1847.
2. H.C. - Morpeth, 30 June 1847: "In respect to the omission of the metropolis I have stated to leading Members of
(Continued on next page)

the element of nomination in the local Commissions also disappeared; it was agreed, to pacify the water interests, that local authorities should contract for their supplies with existing companies. The number of Commissioners on the central Board was cut to four, of whom only one was to be paid.⁽¹⁾ "If defective at all", observed Morpeth on the 1st July, "he believed the Bill contained too little of stringent or compulsory power to effect what was desirable. The principle of the Bill was to leave all to local agency, advised and encouraged by central superintendence".⁽²⁾ But by the 8th July it was clear that Morpeth's concessions had not gained their object of securing an easy passage for the Bill. Nobody was greatly surprised when Lord John Russell announced that the measure could not be proceeded with during the present session; and nobody could disagree with his verdict that this was partly due to the importance of the subject, partly to the defective framing of the Bill --- but "another cause may be, that unnecessary opposition has been made for the purpose of delay".⁽³⁾

In fact, whatever had been gained in postponing the clash with metropolitan interests was lost in the feeling which the exemption aroused in the press and the provincial representatives, who saw in it one more instance of the influence of the City Corporation and the solid block of sixteen metropolitan M.P.s.

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1. Hansard, vol. 93, p. 1100, 1 July 1847.

2. *ibid.*, p. 1103.

3. *ibid.*, vol. 94, p. 25.

(Continued from previous page) Associations and to all parties I have met with, that I really believe it will not be of much moment if full powers of inquiry be given to the new Board to prepare for the next Session, because if full powers of execution were given, the new Board, if they know what they are about must enquire and survey very cautiously and would not I apprehend get beyond inquiry by the middle of the next Session; when very probably they might not find the best a priori powers of execution sufficient or applicable and would then recommend a new Bill with special provisions. All I should be anxious about (and I should say it publicly) would be full powers of enquiry and preparation for the next Session".

One point above all impressed Chadwick as he read the Bill after it had passed the Committee stage. Only one paid Commissioner, and that one at £1,000 a year! Was this the value the Government set upon the execution of the new measure? Even the extreme Radical papers, such as the "Weekly Dispatch," scoffed at the cry of patronage in this connection.⁽¹⁾ The influence of Southwood Smith's name with the press would have been worth double the cost of a second Commissioner.⁽²⁾ In

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1. E.C. - Joseph Hume, 5 July 1847. In another note to Hume, undated, Chadwick observes: "The reduced salary for increased duties carries with the appearance of a public affront, a public contumely of intellectual labour applied to the field of legislation Now would it not be becoming your position as an economist to insist on some security for good appointments, and vindicate yourself from a participation in the wasteful parsimony".
2. "This cuts off the chance of the undivided aid of Dr. Southwood Smith whose assistance in the medical portions of the measure, I should have deemed essential; whose writing is of a high order and whose popularity with the Press which it is important to carry with us, and with the medical profession would be worth several salaries, and whose labours entitle him to a paid place at the Board even if it were to be a sinecure." (E.C. - Nassau Senior, 7 July 1847). He added: "Three members of the Government (not in the Cabinet) urged me to withhold personal remonstrances on the assurance that my position for the future must be changed for the better. You know that my salary at present is £1,200 per annum. The extraordinary reduction proposed is its own commentary".

In a note, probably addressed to Lord Morpeth, 7 July 1847, he reported that as a result of the decision concerning the number of paid commissioners, Southwood Smith "feels himself in a painful position As he is now as he considers excluded from acting as a paid Commissioner, he is desirous in his anxiety of acting as one of the unpaid members of the Board, and the only consideration with him at present is as to the time and mode of sending in his application He has a friendly and an affectionate desire to continue in cooperation with me upon the measure and I reciprocate the feeling".

accepting the post, he must himself sacrifice £200 a year of his present salary; yet, when he reflected on the dangers of a less suitable appointment, he felt that "if the salary were one half that proposed, there would seem to be (regard being had to consequences) an obligation to take it".⁽¹⁾

"Look at my present position!" he wrote heatedly to Nassau Senior. "After every appeal of mine has been affirmed: every remonstrance made sustained against adverse inclinations: I who have had no charges preferred against me, no hearing and no public condemnation by impartial members, I am proposed to be in effect removed arbitrarily to a lower place in emolument which all who believe myself to be contemplated regard as a public and intentional slight". And he could draw no comfort from the hope that the position offered would improve in time. "Was I not told on the word of a prime minister and a gentleman as the condition on which I took the office of Secretary to the Poor Law Commission that I should have "the position of a fourth Commissioner" assured to me; a position which a regard to the public service not to speak of gentlemanly feelings of propriety and a regard to the naturally inalienable superiority of him who has devised superior measures, would have assured to me even if there had been no promise whatsoever". He would decline the paid Commissionership with its derogatory salary, he told Senior, but he would put in a claim for an unpaid seat at the new Board, at which he would continue to give such gratuitous service as he had all along given to sanitary measures. At the same time he would claim to be retained at the Poor Law Board, on the grounds that his remonstrances had been upheld by the Government and the Law Officers, and that his was the best experience and information available.⁽²⁾ Chadwick liked to think that the management of the two Bills, the Poor Law and the Health of Towns, did Russell some damage in his constituency in the 1847

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1. E.C. - Lord Ebrington, n.d.
2. E.C. - Nassau Senior, 7 July 1847.

election. Even Richard Lambert Jones, an old adversary on the City Commission of Sewers, stopped him in the street one day to tell him that the Corporation considered that he was being sacrificed for having performed his duty to the public.⁽¹⁾

On the 8th July the Public Health Bill was thrown out, and Chadwick with it. Somerset House had closed its doors behind him. He faced a period of twelve lean months before Morpeth's revised Bill could be passed. Already he had warned his American dependants that they could expect no help in the coming year, when he was summoned to an interview with the Prime Minister. He was to be put in charge of a Commission of Inquiry, Russell told him, not into the evils, which had been sufficiently proved, but into the specific remedies available for the sanitary ills of the capital.

Possibly the thought of Chadwick, with his indiscreet pen, at a loose end for twelve months was too much for a Cabinet whose part in the Andover affair could not be too kindly scrutinised. But in any event the problem of metropolitan government, at the sight of which Morpeth had "struck his flag and cut his stick"⁽²⁾, loomed blackly on the legislative horizon of the coming session; and Chadwick, with his zest for investigation and his unrivalled grasp of sanitary and administrative principles, was the only man who, in the space of a few months, could draw up the indictment of the present régime and indicate the lines of future reform.

But there were more powerful reasons. In the last few months the knowledge of the sanitary reformer had taken on a heightened value. Cholera had broken out in Kabul in the hot season of 1845. Spreading from the north west provinces of India, as from a centre, it swept over Afghanistan, Persia, and the south eastern portion of Asiatic Turkey, until it was arrested by the winter of 1846 - 1847. In the spring of 1847

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1. E.C. - Lord Ebrington, 20 July 1847.
2. Roebuck: Hansard, vol. 93, p. 732, 18 June 1847.

it recommenced its advance, striking south into Persia, Arabia, and Egypt, north through Georgia and Circassia into the southern provinces of Russia. The northern wing of the microbic invasion divided, one branch thrusting through European Russia into Finland and Sweden, the other decimating the towns of the lower Danube, and advancing through Austria into Germany. In September 1848 the cholera was at Hamburg, whence it took ship to Edinburgh, appearing unmistakeably in the Scottish capital at the beginning of October 1848. More than twelve months before that date cases of indigenous fever were being scrutinised anxiously in England for the characteristic symptoms of this exotic disease. What put a wholesome fear of filth into the governing classes was the spectacle of the unhastening, unchecked advance of a microbe on the march, traversing thousands of miles at the heels of the overland caravans and spreading westwards along the great interior waterways of Russia. For this was the second time in one generation that cholera had swept through Europe; and not since the English Sweat landed with Henry Tudor at Milford Haven in August 1485 and, as Polydore describes, journeyed to London as his camp follower, had Britain experienced so novel and so terrifying an epidemic as the Asiatic Cholera, which struck down its first victim in Sunderland in October 1831. A few months of cholera in 1831 - 1832 caused more alarm than centuries of home-bred typhus, which killed its thousands yearly in the slums of the industrial towns. It was the dramatic suddenness of the cholera attack which spread terror. In the space of a few hours the sufferer might be lying pulseless and blue, his body shaken by repeated vomiting and purging, his limbs twisted with cramp; and in the existing state of medical knowledge one half of those who passed into the blue, or collapse, stage of the disease were doomed. "Bleeding, brandy, opium, calomel, ammonia, quinine, croton-oil, cold water, the warm bath, the cold effusion, all varieties and contrarieties of treatment possible, have been employed alike in vain".⁽¹⁾ For this reason, though the

1. Metro. Sanitary Commission, Second Report, p. 22.
P.P. 1847 - 48 (911), xxxii. 253.

influenza epidemic of 1847 killed more of the middle and upper classes than the cholera of 1848 - 1849, it aroused nothing like the same amount of apprehension. Nor was this all.

"Difference of social grade less exempts the individual from the attack of cholera than of fever, and cholera more often, and apparently more capriciously, bursts its usual boundaries, and attacks the inhabitants of comparatively healthier districts, amongst whom it proves little less mortal than when it ravages its accustomed haunts".⁽¹⁾ The louse was no longer seen in polite society, and typhus in consequence was a poor man's disease. At the end of the eighteenth century a respectable middle-class physician was noting complacently that fever was rare in Liverpool; though, to be sure, Dr. Currie was treating a steady average of three thousand typhus cases a year at his dispensary. But the comma bacillus was a social climber; excreted by some lowly sufferer in Fore Street, Lambeth, or Hair-brain Court, it might penetrate the half-hearted filter defences of the Water Companies to poison his betters in ^{the} broad squares of the West End. When the obituary columns of the "Times" began to lengthen, the law-making classes were stirred more deeply than by the figures in the reports of the Registrar General, which referred chiefly to poor men's losses.

Assured of the backing of an apprehensive Government,⁽²⁾ therefore, Chadwick cast an imperial eye over the vast,

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1. Metro. Sanitary Commission, First Report, p. 27.
2. Returning from the interview with Russell, Chadwick wrote to the Bishop of London (24 July 1847): "I could not but accept, believing that there was no one else who had bestowed so much labour on the subject, or would be likely to arrive at conclusions quicker tho' I cannot but feel that the treatment of such labour has heretofore been far from encouraging. I shall part with the Poor Law administration, where so much remains to be done with much regret. I am firmly convinced that two thirds of the unpopularity which attaches to it, or the greater proportion of it, is due to simple mismanagement. Above all, I regret being impeded in the preventive course of administration, all of which might be made popular in the best sense".

disorderly province of the metropolis. Outside the square mile of the City, London in 1847 was a tangled jungle of overlapping jurisdictions and conflicting authorities. Some three hundred local bodies --- including seven Commissions of Sewers, nearly a hundred paving, lighting, and cleansing boards, and about 170 vestries and Boards of Guardians --- jostled and frustrated each other, each clinging with determination to its minute segment of power and dignity, with the object, it would seem, rather of keeping out other authorities than of conferring benefit on the population beneath its care. For the densest parts of the capital there were 120 Local Acts, under which were established 80 distinct local jurisdictions, many of which coincided with neither parish nor Union nor police district. In the parish of St. Pancras alone there were sixteen separate Paving Boards acting under 29 Acts of Parliament.⁽¹⁾ And while the drainage and surface cleansing of London was thus minutely sub-divided between a host of public authorities, other vital sanitary services were shared by eight joint stock cemeteries and nine Water Companies. The Royal Commission on Municipal Reform, which had devoted the whole of its second report to the capital, had concluded that London must have a unified government, but it had not ventured to decide whether it should take the form of a Government Commission, of a newly created municipality, or of an expansion of the City Council. If the Government ever really intended to take action on this report, the edge of their resolve was turned by the hard core of vested interests in the City. The chaos remained, and grew worse year by year, a challenge to all Chadwick's principles of administrative consolidation. For the remaining years of his official career the problems of London's drainage, water supply and burial services were to occupy a major part of his energies.

There was little attempt by the Government to conceal the real purpose of the investigation on which he was now engaged.

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1. "Report on the Epidemic Cholera of 1848 and 1849", pp. 9 - 10. P.P. 1850 (1273), xxi. 3.

It was to convict the works and administration of the Sewers Commissioners, and to furnish arguments which might be used to justify to the public the resumption by the Crown of the sanitary powers they had so ineffectively wielded. Lord Lincoln and Sir James Graham had earlier taken tentative steps towards superseding the Commissions, but had drawn back --- apparently, Chadwick observed, for fear of offending the Commissioners. "Something must be said publicly", he wrote sharply to Lord Morpeth, "of the state of mind which inflicts disease and death extensively on thousands out of deference to conventional feelings of individuals, which feelings are most improper for those individuals to entertain".⁽¹⁾ For the Sewers Commissions stood plainly condemned by the Commons Committee of 1834, by Chadwick's Sanitary Report of 1842, by the Health of Towns Commission of 1844; and Chadwick fretted at the needless delay which the Government's caution imposed upon him. Within a fortnight of the interview with Russell, he submitted to Morpeth some "Memoranda of results in relation to the Metropolis, promised by E. Chadwick"⁽²⁾, a paper which, in its reckoning of sanitary profits and economies, struck the confident note of the commercial prospectus. Three districts might in future be drained for the cost of two, two courts and two houses at the cost of one hitherto drained by private builders --- provided that sound administrative arrangements were adopted. The secret lay in the consolidation of the whole of the natural drainage area of London under a single Commission of Sewers. Over £60,000 a year might thereby be saved on establishment charges, on the expense of rate collecting, and on the outlay for Commissioners' dinners. Consolidate at once, without waiting for the results of the new inquiry, Chadwick urged on Russell and Morpeth. If the Sewers Commissions remained in their present hands, the doomed Commissioners would resist the investigation to the utmost of their power. The

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1. E.C. - Lord Morpeth, 5 August 1847.
2. 4 August 1847.

more enlightened of the surveyors had already come into conflict with their reactionary masters; John Roe, for example, whose flushing machine had been coldly received by the Holborn and Finsbury Commissioners, and that "extraordinary man", John Phillips, the self-educated journeyman bricklayer who had risen to the surveyorship of the Westminster division and who had pointed out the defects of the system of sewerage pronounced perfect by the President of the Association of Civil Engineers. These experienced officers were agreed that it would be well worth suspending all the drainage works now under construction for the sake of a complete survey, and they assured Chadwick that if they were given emancipation and security they would willingly co-operate with the Commission of Inquiry in the preparation of remedial measures. ⁽¹⁾

Morpeth approved highly of Chadwick's papers ⁽²⁾; but Russell was luke-warm ⁽³⁾; and a strong letter from the Lord Chancellor, which Morpeth would show to Chadwick only in abstract, put an end to Chadwick's hopes of a coup d'état. ⁽⁴⁾ Consolidation was postponed until the investigation was completed, and Chadwick sighed that whilst the Sewers Commissioners would not obstruct the inquiry so openly as to expose themselves to a supersedeas, there would be "no work with a will". ⁽⁵⁾

Besides Chadwick and Southwood Smith, the Commission of Inquiry included Lord Robert Grosvenor, who was Russell's choice, and Richard Lambert Jones, representing the interests of the City of London; while Chadwick had made sure of a majority in favour of progressive measures by insisting on the nomination of Professor Owen, "the Cuvier of our day". ⁽⁶⁾

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1. E.C. - Russell, 8 August 1847.
2. Morpeth - E.C., 9 August 1847.
3. E.C. - Morpeth, 11 August 1847.
4. Morpeth - E.C., 19 August 1847.
5. E.C. - Morpeth, 19 August 1847.
6. E.C. - Russell, 4 August 1847. Morpeth had urged Chadwick:
"I think however you will want some one conversant with
(Continued on next page)

Russell had wanted to appoint the son of Sir John Bowring as assistant secretary to the Commission. Chadwick retorted bluntly that it would look like a political job, and instead he secured the post for Henry Austin, a young engineer who had carried out some pioneer sanitary work of considerable promise. (1)

Early in September 1847 the Commission moved into the rooms in Gwydyr House where the Health of Towns inquiry had met two years before. "I have seen enough and supped enough of horrors not to avoid more except where it may be absolutely necessary", Chadwick confided to Morpeth at the outset of his third sanitary expedition. "A man who has had two fevers in the sanitary cause, may be placed on the footing of an officer in the Army who has led two forlorn hopes and excused a third. I certainly shall put forward younger men for the enterprise". (2)

Within a few days, however, he was revisiting the lower districts of Bermondsey in Professor Owen's company. (3)

As early as possible Chadwick withdrew, with his two allies, Owen and Southwood Smith, into the seclusion of a sub-committee on the cholera, and the main propositions of the reports were hammered out in this congenial atmosphere, removed from the "Parliamentary influences, fidgets, and groundless alarms" of Lord Robert Grosvenor⁽⁴⁾, and Jones' continual insistence on the rights and dignity of the Sewers Commissions. To save time, and to gain the support of the representative of the City, they confined their attention to the seven districts for which the Crown was responsible, and the attack on the City

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(Continued from previous page) Parliamentary feasibilities, and with what is likely to go down with the general Metropolitan feeling". (25 July 1847). To which Chadwick had replied by expressing his suspicion of the metropolitan Members: "I doubt whether the service would not bring a disagreeable pressure upon themselves; and impede the inquiry by their becoming the means of hearings of parties out of the regular course of the investigation". (26 July 1847).

1. E.C. - Morpeth, 24 July 1847; E.C. - Sir George Grey, 25 August 1847.
2. E.C. - Morpeth, 11 September 1847.
3. E.C. - John Forster, 4 November 1847.
4. E.C. - Morpeth, 18 November 1847.

sewers, which were no better than those under the other Commissions, was postponed. The first Report of the Commission of Inquiry was signed on 20th November.⁽¹⁾ At their opening meeting Professor Owen had informed them that in the medical schools it was strongly believed that a cholera epidemic was impending.⁽²⁾ On that grim note of warning the Report opened. If the cholera came, were the defences of London any stronger now than in 1831? A few of the old open sewers had been arched over, some additional lines of common sewer laid down; but most of the new sewers were not supplied with a sufficient sweep of water to carry off their contents.⁽³⁾ The improvements made in the past sixteen years were, in fact, negligible. As Chadwick had already written to Russell: "We have compared the state of all the districts most severely visited by the Cholera, and shewn that there has been no material improvement in their sanitary condition. It is as I think, proved, that in the majority of the districts the Commissions are positively not to be entrusted with the cleansing of a ditch, and moreover that the districts, even for that purpose, interfere with each other!"⁽⁴⁾ London was wide open to the cholera in 1847 as in 1831.

But, thought the Commission, the men of 1847 had one great advantage over those of 1831. It was now known how the cholera was generated, and how it might be prevented. Reports of medical observers on the progress of the epidemic in London during its last visitation showed that in general it had followed the track of rivers and water-courses; but the most deadly explosions had taken place near some notable accumulation of filth, the mouth of a sewer, a "bone vessel" laden with manure, a fever-nest like Three Tuns-Court.⁽⁵⁾ Such

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1. "First Report of Commissioners appointed to inquire whether any and what special means may be requisite for the improvement of the health of the metropolis", 1847 - 48 (888) (395) XXXII. 1. 57.
2. E.C. - Russell, 6 October 1847.
3. Metro. Sanitary Commission, First Report, p. 21.
4. E.C. - Russell, 10 November 1847.
5. Metro. Sanitary Commission, First Report, pp. 17 - 19.

accumulations were usually to be found in the lower districts of the towns; but impure air could not be fenced in, and the great numbers of respectable artisans and shopkeepers who had perished proved that a contaminated atmosphere was an "incomparably more powerful predisponent" to the disease than extreme poverty and the lack of adequate food. "In the present state of most towns and cities, the number of persons whose constitution is enfeebled by want of food, compared with the number whose vital energy is depressed by want of pure air, is found to be an exceedingly small minority. We have little power to deal with the former class of predisposing causes, but we have complete power by arrangements which are known, and which involve large and manifold economies, to remove from the metropolis, and from every lane, court, and alley of every town, the sources that poison the air. Here then is the true field for exertion".⁽¹⁾ The lesson was plain. There was only one safeguard: "that safeguard consists in sanitary arrangements".⁽²⁾

Could the cleansing of London be safely left, however, in the hands of the existing Commissions of Sewers? The chief preventive measure must be the flushing of the sewers, and of the several districts, though the advantages had been set before them years ago, only one, the Holborn and Finsbury Commission, had flushing machinery in systematic use. It would be necessary to divert upper streams under one Commission to cleanse the sewers of lower levels lying under a different jurisdiction; such collective action the present Commissioners had shown themselves incapable of understanding or executing.⁽³⁾ Their existing works were a standing memorial to their ignorance and incompetence. Private Acts had been obtained by the Commissions for Westminster and for Surrey and Kent, and bills were in agitation by the Tower Hamlets and the Holborn and Finsbury divisions --- and not one of them contained provisions

1. *ibid.*, p. 17.
2. *ibid.*, p. 33.
3. *ibid.*, p. 37.

for the supplies of water which were needed to make the sewers act properly.⁽¹⁾ The clerk to the Surrey and Kent Commission, after confessing that few house drains were joined to their new main sewers because of the offensive effluvia which was thrown back through the privies and water closets, went on to state that his Commission now proposed to spend £100,000 on extending the same system.⁽²⁾

Strong though the condemnation was of the works and administration of the Sewers Commissions, it is clear that the harsh phrases of Chadwick's original draft must have been smoothed down in deference to Lambert Jones.⁽³⁾ "The sewers establishments were mere 'Castles of Indolence'", Chadwick wrote later. "I scarcely know of any old Government Offices which were worse or so bad. Now and then a Court with about the degree of business to give the excitement of Sessions work for the relief of a Country Squire; now and then a new sewer to be considered, on the report of the Surveyor; Chief Clerks with good Salaries, going there in the middle of the day, hearing a complaint or two, reading a newspaper for an hour or two, and then going home to his Country house, or to some other place of emolument; Clerks of the works seeing to the performance of half labour by labourers with extra pay; the Surveyor now and then seeing to the work, and hearing the reports of the Clerk of the Works; but leaving early to amuse himself with a farm or to attend to any private professional engagement which might offer itself".⁽⁴⁾ In a confidential report to Lord Robert Grosvenor, he commented: "No sane person would go on, so expending their own money as these commissioners are now going on spending the money of others Had sustained attention been given to the

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1. Ibid., pp. 38 - 39.
2. Ibid., pp. 65 - 66.
3. Chadwick told Owen, 11 November 1847: "Dr. Smith agrees with me that it will never do to go on, on the principle of not stating anything that may give offence to any one and that we should hear the whole of the alterations proposed before we agreed to any one".
4. E.C. - Hon. Frederick Byng, 11 September 1848.

works by persons qualified by education giving close and earnest attention to them, it may be confidently averred that it is impossible such works should have gone on as they are now going on, and money have been so wasted: - it is impossible that they should go on with work piecemeal, without any common system of levels, without knowing whether the piecemeal work would ever combine as parts of one system: it were impossible that they should go on building sewers without any guages of the quantities of flood water, or the house or street drainage; that they should carry expensive sewers through streets without duly considering and representing the necessity of facilities, and adaptations of the house drainage to the main drainage; that they should have gone on as they do now, draining some districts at the expense of others which for years have paid sewerage rates without any particle of benefit whatsoever, levying so large an expenditure, so unequally oppressively and often illegally levied. And lastly it is impossible that they should have gone on, as they have done, and are now doing without perceiving and representing the necessity of having supplies of water adjusted to the proper and wholesome action of the works under their management".⁽¹⁾

The cholera and Chadwick's revelations were too much for the Law Officers, and within a few days of the signing of the Report they concurred in his proposal to recall the Commissions of Sewers and re-issue them to the same individuals for each district. Chadwick had asked for a small Commission, fitted "through their known attention to sanitary improvement"⁽²⁾ to supervise the paid officers in the execution of a comprehensive drainage scheme. All that was really wanted, he thought, was a sufficient number of Commissioners to supply a working quorum of six; and the public should see from the character of the appointments that scientific and medical skill was being

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1. "Metropolitan Special Commission. Notes on the Evidence examined", MS, 7 October 1847.
2. Metro. Sanitary Commission, First Report, p. 33.

brought to bear on the problems of metropolitan drainage. No more influential names could be found than those of Dr. Southwood Smith; Dr. Neil Arnott, the expert on ventilation; Sir James Clark, the Queen's physician; Dr. Toynbee, that very successful young surgeon --- "all of whom would I believe work with me".⁽¹⁾ The nomination of every half-informed person, he told Russell, would be an additional obstruction to business; but for a time - rather inconsistently - he was taken with the idea of asking some of the larger property owners, such as the Duke of Bedford and Lord Westminster, to sit on the Commission. Their interests certainly lay in "having complete works, in preventing dilapidations, in a healthy well conditioned and prosperous population, in avoiding the chargeability of a wretched and unhealthy, an irritable, short lived and dangerous population".⁽²⁾

There was a long history of Government intervention in the administration of London, owing to the absence of organs of municipal government. Metropolitan police, gas, roads, cemeteries, markets, had all in turn received special attention from Parliament, while Select Committees had considered plans for the improvement of the capital in 1838 and 1844. Chadwick's

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1. E.C. - Russell, 4 August 1847.
2. ibid. "Another class is specified as having large and permanent interests in the improvement of the habitations of the population: this appears to me to involve a principle which ought to be asserted. The greatest obstructions to proper outlay are commonly created in towns by the smaller class of owners who are lessees and have only short and temporary interests. I have stated that the worst conditioned habitations will commonly be found to belong to them. The spreading of the charge for permanent works over long periods of time, will hold out to this class temptations to waste; which forms one ground for the appointment of a central control to act as the Court of Chancery acts judicially, for the prevention of waste and for the protection of reversioners....."

Morpeth rejected the suggestion, pointing out (9 August 1847) that "it is quite obvious that men like Lords Westminster and Portman could not be expected to attend; would not therefore the insertion of their names be open to much the same sort of objection as the present composition of the Commissions?"

plans for London were in the direct line of this tradition. The model of government he advised was the one he had recommended consistently for local sanitary administration since 1842: government by Commission, efficient because it was composed of selected brains, responsible because its powers were defined by Act of Parliament and its conduct was under the jealous scrutiny of the legislature. Sanitary works, which called for technical knowledge and specialised skills, could not be entrusted to an elected assembly, composed of vestry politicians and jobbing builders. "The more the investigation advances, the more is it apparent that the progressive improvement and proper execution of this class of public works, together with the appliances of hydraulic engineering, cannot reasonably be expected to be dealt with incidentally, or collaterally to ordinary occupation, or even to connected professional pursuits, but requires a degree of special study which not only places them beyond the sphere of the discussion of popular administrative bodies but beyond that of ordinary professional and architectural practice". (1)

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1. Metro.Sanitary Commission, First Report, p. 86. In the memorandum quoted above, "Notes on the Evidence examined", Chadwick combats the idea that sanitary administration should be entrusted to parochial bodies.

"The parishes are entrusted with some powers of house drainage and cleansing:

The powers themselves are more extensively neglected, and when exercised are exercised even more inefficiently than by the commissioners of sewers. The powers entrusted to parishes are not in their nature powers of such large expenditure, but in respect to the business of paving and cleansing which they exercise powers as large the waste is as great as by the commissions of sewers.

The parishes have complained of the Commissions of Sewers: but the object of the complaints have been to get a share of the rates expended in their own parishes: --- or to obtain power in the direction of the expenditure. There is no evidence that if the power sought were conferred upon them; the expenditure would be improved; there is indeed strong presumptive evidence that it would not

In the first place with all the motives which opposition gives to search out the defects of the parties opposed; the parishes have perceived none of the glaring defects of the

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Over a thousand Commissioners were superseded by the writs of November and December 1847⁽¹⁾ and their powers were transferred to a select body of 23, which included seven Members of Parliament, three doctors, two clergymen, two lawyers, the proprietor of the "Times", a geologist, a physiologist --- and, despite all Chadwick had written, four of the discredited Sewers Commissioners.⁽²⁾ A dozen or more of these were personal friends of Chadwick; but the new Commission, small as it was in comparison with its predecessors, was larger than he would have wished. And he soon made it plain that he considered it was too large by just the number of those who opposed his views.

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(Continued from previous page) works of the Commissions of Sewers: in no one instance has any suggestion for the improvement of the works; or indeed any well considered plans of administration arisen from the parishes or from the parochial leaders.

Nor can it be expected from the nature of the works that it should be otherwise Of their very essence they are as peculiarly unfitted for discussion in popular assemblies, and voting on them as are questions of chemistry or surgery. The merits of the officers equally with the plans are out of the reach of discussion of such assemblies"

1. The numbers were as follows:

Westminster and part of Middlesex	240
Holborn and Finsbury	150
Tower Hamlets	179
Poplar and Blackwell	67
Surrey and Kent	280
Greenwich	116
St. Katherine's-by-the-Tower	33

The first six of these were superseded on 30 November 1847, the last on 4 December. The names on the Commissions included those of the Duke of Wellington, the Lord Chancellor, and the Prime Minister.

2. The following were appointed to the Commission:

Lord Morpeth, Lord Ashley, Lord Ebrington, the Hon. Frederick Byng, the Dean of Westminster, Sir James Clark, Sir Edward North Buxton, Sir Henry de la Beche, Joseph Hume, John Walter, R.A. Slaney, William John Broderip, John Bullar, Professor Owen, Dr. Neil Arnott, Dr. Southwood Smith, the Rev. William Stone, John Bidwell, Robert Hutton, Thomas Puckle, R.L. Jones, John Leslie, and Edwin Chadwick.

Moreover, the jurisdiction of the Commission halted at the walls of the City. It was indeed no more than an interim solution, into which the Government had been driven more by the transient threat of the cholera than by any consideration of the enduring problems of London's sanitary administration. Chadwick was presently manoeuvring to replace this temporary body by a permanent executive modelled closer to his liking.

Unsatisfactory though he thought it, however, he had good reason to congratulate himself that in the consolidated Commission of Sewers London for the first time in its history had an administrative body charged with the responsibility of planning and constructing public works for the whole metropolitan area outside the City.

CHAPTER 9.

PUBLIC HEALTH ACT, 1848.

Lord Morpeth introduced his revised Bill on February 10th, 1848. Once again Chadwick's hopes were at the mercy of the "winds and waves of speech in the house".⁽¹⁾ Would their lumbering craft, with its 150 clauses, go to pieces again, as in the previous year, and be stranded, an abandoned wreck, when the session came to an end? The Bill was, he knew, in the hands of a man who wished it well. As a Howard, the heir to the sixth Earl of Carlisle, Lord Morpeth was a power among the Whigs.⁽²⁾ He had shown himself a sincere and courageous friend to progressive movements --- as Chief Secretary in Ireland encouraging agrarian reform, as a visitor to the United States startling Bostonians by attending an Anti-Slavery Fair, as a Whig grandee in England giving a lead to men of rank in supporting mechanics' institutes and the Health of Towns Association. To the Public Health movement Morpeth brought the prestige of his family name, and the personal popularity earned by his characteristic charm and transparent goodness of heart. He was, says Harriet Martineau, "the best and most beloved man in the company of statesmen of his day and generation".⁽³⁾ All this was well enough; but in his heart Chadwick wondered whether Lord Morpeth's resolution was firm

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1. E.C. - ?, n.d.
2. George William Frederick Howard, 1802 - 1864. Chief Secretary for Ireland during Lord-Lieutenancies of Lord Normanby and Lord Ebrington. Member for West Riding February 1846, and again in August 1847. Chief Commissioner of Woods and Forests, July 1846. Seventh Earl of Carlisle, October 1848, taking his seat in the Lords February 1849. Chancellor of the Duchy of Lancaster, March 1850.
3. "Biographical Sketches", 4th edition 1876, p. 142.

enough, whether his temper was not too equable. Was it sufficient in the Parliamentary leader of the sanitary agitation to possess moral idealism, a gracious sympathy of manner, an exquisite politeness? One could be too polite to the entrenched interests which cast their shadows over the health of millions; one could be too accommodating to slum landlords, and listen too patiently to the defenders of local self-government. Perhaps Morpeth earned at too great a price Disraeli's commendation that he was one of the most popular men in the House and in the country.⁽¹⁾ For his part Morpeth, the politician, found Chadwick, the administrative theorist, too punctilious and unbending in his views. "You must not suspect me of any disposition to undervalue your advice or to slight your counsels", he assured Chadwick, "but as I have to make things go down with Senates, Boards, and Bodies of men, there must^{be} often a want of the identity of proceedings which otherwise I might be glad to exhibit I hope we shall keep all things smooth, which is not only pleasanter, but at the present constitutes our highest prudence".⁽²⁾

As in 1847, the Bill provided for a central Board of Health with five members, two of whom were to be paid, "presided over by a responsible member of the Executive Government". On the petition of one-fiftieth of the rated inhabitants the General Board would have powers to introduce the machinery of local sanitary administration into a district, and to influence its working by the advice and surveillance of a number of Superintending Inspectors. The amount of central interference, explained Morpeth, "was really at present confined to a very few items": it "was intended to operate with regard to advising the original formation of the district, without which the Bill could hardly be applied; to considering disputed questions, which might be referred by local Boards, and arbitrating upon them; to

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1. Hansard, vol. 101, p. 688, 30 August 1848.
 2. Morpeth - E.C., 7 June 1848.

retaining some power of interference upon points on which it was considered desirable to enforce a uniform procedure; and to deciding upon some works of great magnitude --- which he considered was a power that afforded a fair protection to the ratepayers, and which he should have thought the local Boards themselves would not have been unwilling to refer to an independent, an impartial, and a competent tribunal. Another power which would be given to the central authority was the auditing of the accounts, which he thought would impose a very necessary and salutary check".⁽¹⁾ A local public health Board would be established by an Order in Council or Provisional Order, which would prescribe the number of members the Board should have; in a corporate town this implied that the municipal council would select the Board from amongst its members, thus obviating the criticism that town councils were too numerous and cumbrous for such duties. Where the boundaries of the newly established sanitary district extended beyond the former municipal jurisdiction, the areas thus adopted would be permitted to elect a number of representatives to sit with the town council for public health purposes. In non-corporate towns the Board of Health would be elected by a system of plural voting similar to that in use for the election of Poor Law Guardians. The powers of local Boards fell into two classes: it was imperative upon them to compel owners or occupiers to provide house drains, to ensure a constant water supply (by the compulsory purchase of existing water works if necessary), and to appoint a surveyor and an inspector of nuisances; they could also exercise permissive powers to appoint an officer of health, to re-construct the sewers, to pave streets, to make regulations for the disposal of filth and refuse, to provide places for public recreation. Neither Scotland nor Ireland was covered by the Bill; and the problem of London and its hundred Local Acts was reserved for a separate measure.

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1. Hansard, vol. 93, p. 737, 5 May 1848.

It was by no means the best Bill that could be devised, thought Chadwick as he looked over its provisions, --- but it was the best they were likely to get.⁽¹⁾ The machinery of central control was certainly not of Chadwick's planning. "I must do the best I can and how I can", he told his friends resignedly, "--- the Board is an exceedingly hazardous affair but there seems to be no other chance".⁽²⁾ Presently, however, Morpeth was wavering before the critics who condemned the Bill as a Government job, to create new Commissioners and a numberless host of Inspectors in the face of a Budget deficiency of two or three millions, and there was talk of entrusting the measure to a Board of unpaid Commissioners. "That of course excludes those who cannot live on air, or who like myself have no private fortune".⁽³⁾ Obviously the proposal was aimed at himself, probably out of jealousy at the G.B. with which the Prince Consort had recently honoured him.⁽⁴⁾ It reflected the ignorance of men like that talkative eccentric, Colonel Sibthorp, who had once declared that the whole sanitary service was unnecessary, and that half a crown per diem would be sufficient remuneration for an Inspector, who would be expected to superintend a novel type of engineering works, three to ten guineas a day being the usual payment to engineers in private

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1. E.C. - P.H. Holland, 29 February 1843. "I have never been able to take any part in the framework or details of the Bill since the first meeting at Lord Morpeth's: I do not feel myself responsible for it, and do not feel confident as to its working other than as a commencement". (E.C. - Lord Campbell, 26 June 1843).
2. E.C. - W.E. Hickson, 4 March 1843.
3. E.C. - ? , n.d. The letter continues: "There may be questions as to what should be done: as to the degree of power that should be conferred: as to the number of Commissioners: but is the House reduced so low in sense, as to refuse payment for what is done, or to think that unpaid dilettanti service is cheap service"
4. "I do believe it has tended to stir up a mass of jealousy against me in the House of Commons which has furnished the Government with the pretext for abandoning the Board of paid Commissioners, and promising that it shall be carried out by Commissioners who are unpaid". (E.C. - W.E. Hickson, 9 May 1843).

employment.⁽¹⁾ Once again Chadwick began to fear that his proposals would be accepted but their author rejected. "For the sake of sound principles of administration, and against cant and humbug, do what you can", he appealed to Joseph Hume, adding that if it were consistent with public policy he would be glad to be paid piece work to execute the Act, or to receive a small percentage on the savings --- or no cure, no pay.⁽²⁾ The following day Hume obtained the consent of the House to the appointment of a single paid Commissioner, but Chadwick still retained a forbidding vision of himself sitting as a resented and unhonoured figure at the bottom of a Board of titled amateurs. He must be assured a position where he could initiate measures and defend them, he told R.A. Slaney.⁽³⁾ A Cabinet Minister or a recognised official chief, he would not mind; but he had strong and decided objections to acting under any honorary Commissioners whatsoever.⁽⁴⁾ What honorary Commissioners could be found whose special qualifications would give public confidence? Apart from Viscount Ebrington, who was there in Parliament who could assist the measure? "All experience shows that the unpaid pay themselves in some other way for their service which is always the most extravagant Their services are admitted to be necessary, the people of England are the last who are indisposed to pay for them --- the very Chartists acknowledge the principle, that pay and responsibility go together".⁽⁵⁾ An honorary Board, moreover, would be like a screen before the real devisers and draughtsmen of schemes, shielding them when they were at fault and eclipsing them when their work deserved praise. "We do not want the real movers of measures placed behind screens: we want to see and know the real authors: we want to attack face to face Mr. Chadwick or whosoever is the real author of any exceptional

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1. E.C. - Morpeth, 17 May 1848.
2. E.C. - J. Hume, 17 May 1848.
3. E.C. - R.A. Slaney, 16 May 1848.
4. *ibid.*
5. E.C. - J. Haywood, n.d.

measure".⁽¹⁾ To cut the Bill free of the dead wood of patronage appointments, he urged Russell and Morpeth to consider whether even now the measure might not be reshaped, and the dangerous expedient of a Board dropped in favour of the machinery he had outlined in 1844.

"My original proposition was to carry out the work, to some extent in a manner similar, to the measures of education, as a secretary to a Committee of the Privy Council. But I proposed that the Committee should be a quasi judicial committee; for their functions would in fact be judicial. I believe it would be satisfactory to the local authorities, to have the determination of their cases, in open public sittings such as are given upon applications for municipal charters. It would be for the advantage of the cause that false or futile objections should be publicly shewn to be so. The public officer who brought forward the case, in the way of a relator, would take care that it was so good a one as to be in no danger of failure with the local or general public, as well as with the judicial committee.

This arrangement would follow in a beaten course. The Privy Council by old as well as by recent provisions are invested with functions in relation to the public health: and have special powers in relation to contagious diseases. The functions of the Privy Council in matters of quarantine extend over the whole empire. If the measure succeed, as it will succeed, if fair play be given to it, the expansion of powers and extension to other parts of the country might, I apprehend, be most readily given to it under such auspices

If you took the President of the Council instead of the Chief Commissioner of Woods and Forests, and one paid Secretary, you might I apprehend shape the Bill to carry out the measure in still closer connection with the Privy Council than is now given by the bill".⁽²⁾

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1. E.C. - J. Haywood, n.d.
2. E.C. - Lord John Russell, 14 May 1848. He sent Morpeth

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In Committee Morpeth's original proposal was eventually whittled down to a Commission of three, one only of whom was to be paid, under the presidency of the First Commissioner of Woods and Forests. Though he regretted that "the principle of single seatedness"⁽¹⁾ had not been adopted, Chadwick found some satisfaction in the small size of the Board; unless there were very special qualifications of knowledge and zeal, he had told Morpeth, every additional member of a Board was an additional trouble to inform and keep right.⁽²⁾ It is noteworthy that once again, as in the debates of 1847, the principle of ministerial responsibility for the policy of the new department was not clearly envisaged by the Government, nor by any of the critics, friendly or hostile, in the House, with the exception of Lord Lincoln, who continued to urge that public health

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1. E.C. - W.E. Hickson, 4 March 1848.
2. E.C. - Morpeth, n.d.

(Continued from previous page) (31 May) a "Memorandum: on the plan of working Sanitary Measures under the Secretary of State for the Home Department", in which he remarked:

"Besides the objections urged by the Health of Towns Association in their report on Lord Lincoln's bill, there is another.

The local authorities and the public at large desire to have persons to look to in such positions, of whose attention to the business they may be confident and whom they may deal with directly. But on this scheme they would be deprived of the advantages of the information of the proceedings upon the measures in question given in regular reports from the responsible officers. Of the appreciation of these reports there can be no doubt. The sale of them to the public, has been on the average ten times greater than the average sale of Parliamentary reports and state papers; plus a wide gratuitous distribution. They promote voluntary local exertions in places not provided for by law. They have been found to be of use in the Colonies. Hong Kong has been surveyed on the plan recommended in the Sanitary Report and works of drainage are in progress there. It may be asserted that these reports are contributory to the advancement of science and are so referred to abroad, as well as at home by Engineers and by men of medical science. The issue of such expositions would be incompatible with the functions of the Secretary of State for the Home Department or the custom of that ancient office".

measures should be put under the jurisdiction of the Home Secretary. This solution was rejected by Chadwick, partly because in his view sanitary administration should be kept free from the party influences of a changing political head, partly because public health measures were too important to receive merely the fractional attention of an already overburdened Minister --- but chiefly, it is clear, because he judged the question by one sovereign test, the amount of authority it would ensure to himself.

In its scheme for local administration, also, the Government Bill departed from Chadwick's original recommendations. "I have already remonstrated on the new powers to be given to the town councils which I entirely distrust", he told the Bishop of London, "..... What I apprehend is, that they will go into all kinds of waste, and then it will be said, how much has been spent for Sanitary measures, and how ineffective they have been".⁽¹⁾ The main bulwark in the Bill against a flood of local jobbery was the provision that the General Board should be required to give its sanction to any proposal by the local authorities to spread sanitary charges over a period of time. This safeguard, "so important a key point for the central control"⁽²⁾, was struck out, without discussion, by the Commons, so "allowing the Corporations to pull down what premises they please, pay what they please, and spread the charges as they please"⁽³⁾, without

1. E.C. - Bishop of London, 16 June 1848.

2. E.C. - Morpeth, 3 June 1848.

3. E.C. - Lord Lincoln, 2 June 1848. To Morpeth he wrote (3 June 1848):

"Really the concession of the privilege to the Local Bodies, of spreading charges over periods of time is fraught with so much mischief, and is in itself so large a dereliction of principle, it forms so important a key point for the central control; --- the opposing parties are themselves aware of its importance, and they could make so slight a fight for it, that the provision should be in some way or other replaced, or the privilege of spreading the charges struck out.

It may be said "Oh it may be set right, --- it may be
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the prior examination of an Inspector of the Central Board. The local officers, the surveyor and officer of health, were guaranteed some security of tenure by the provision that the approval of the General Board must be given for their dismissal; but, since their emoluments and conditions of service were left to the local authority, their independence of view and action was far from being secured. Central control over the officers and finances of the local Boards was in fact clipped so close by the Commons, that at one stage Colonel Sibthorp was under the gratified illusion that the Government had abandoned altogether its plan of "centralization".⁽¹⁾ Chadwick pinned his hopes on the Lords to save the Bill from complete futility.

In an interesting letter of this period, Chadwick throws light on his views of the relationship between the central department and the local authorities.

"Your respected father was always distrustful of the middle class Boards when they had to deal with the interests of the labouring Classes. He distrusted Boards of Guardians and justly: so did I. He regarded the Central Board, as the agency of the middle or higher Classes: at least I so understood him. I was always of opinion that it should occupy a judicial, an impartially judicial position; with however a strong leaning

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1. Hansard, vol. 98, p. 872, 11 May 1848.

(Continued from previous page) provided for in the provisional order". But the provision will create jobs; men seeing it in the Act will lay down all sorts of schemes, on the presumption that the expences may be spread, and will fight with the rage of men, who are about to have a money loss inflicted upon them, against the privation. It will create conflicts which the Central Board may not be inclined to undertake, to be unkind and to save the money of indefinite persons. The expenses thus incurred will act as barriers or in reproach of measures of sanitary improvement. The doctrines of the necessary safeguards have been so widely preached and are now so well understood by those out of the house who take an interest in the question, that the whole responsibility of the consequences will be thrown upon you, unless you protest

for those who were unrepresented; namely, the labouring Classes. I can conscientiously say that any failure in that respect was no fault of mine.

Here in Sanitary matters, which it is necessary to carry out by Local Boards they will unavoidably be of one Class: that Class the well to do Class, who do not look into the Districts inhabited by the labouring Classes, and who will not believe anything stated about them. Here we have the Sewers Commissions of the City of London: with representations from each Ward: on the theory that they will know the wants of all the inhabitants. Yet we are developing sources of disease, fever nests, which the Aldermen and the Deputy have never seen, and know as little of as they do of any foreign Country.

Instead of impairing Local Government, the new measure proposes to found it where none exists, and consolidate it where it does. But inasmuch as it is the Local Government of a Class, I think it requires the securities of appeal and protection, for those who are not of that Class".⁽¹⁾

He lays a finger here on the source of much of the opposition which the Public Health Bill encountered in 1847 and 1848. Many Members refused to recognise in Chadwick's sombre picture the visage of their own towns. They deplored the "anonymous slanders" on one place after another, put out by the Health of Towns Association, and rejected indignantly the unsavoury details of the home life of the poor as "an unfounded calumny upon the meritorious classes to which those statements referred".⁽²⁾ Urquhart could not believe that Stafford was unhealthy.⁽³⁾ Divett declared that the Commissioners in Exeter had laid out £100,000 in the improvement of the city, and the place had never had less sickness.⁽⁴⁾ Hudson, who had

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1. E.C. - I.P., 24 March 1848.

2. Hansard, vol. 98, p. 773, 8 March 1848 (Charles Pearson).

3. *ibid.*, p. 716, 5 May 1848.

4. *ibid.*, p. 1174, 18 May 1848.

lived thirty three years in York, had canvassed the electors' houses six times, and had gone among the lower classes as a Methodist exhorter, had seen nothing approaching the scenes described in the report put out by the York Sanitary Committee.

(1) Yet --- Morpeth cited a petition from Stafford, referring to the high mortality in the town, and signed by all but one of the medical men, all the clergy and ministers of the different denominations, the late mayor, a majority of the aldermen, and a large proportion of the town council⁽²⁾; Lord Ebrington, recently returned from Exeter, had attended a meeting, under the chairmanship of the mayor, where citizens had spoken warmly of the lack of drains and good water⁽³⁾; and not a medical man in York impugned the report which Hudson so contemptuously rejected.⁽⁴⁾ So, in the Commons, Members asserted and denied as their limited observation and emotional prepossessions taught them. Sanitary science, in fact, lacked as yet the well-knit logic of established knowledge, and in that unfenced country of the half-known and the merely surmised, opinion could canter on a free rein. Nothing caused so much confusion, for example, as the reformers' well-meant attempt to demonstrate a firm correlation between disease and the offensive exhalations of organic decay; for, as the bacteriologists were later to show, the nexus of cause and effect did not lie here. The connection between noxious emanations and the itch was much more pronounced, as Snow pointed out, but, because men knew what caused the itch, they did not fall into the error of laying it to

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1. Hansard, vol. 93, p. 1284, 6 July 1847.

2. Hansard, vol. 93, p. 734, 5 May 1848. "Such answers as have been given from Stafford may be obtained from other places if there be further delay which is to be deprecated. If I could be provided with a moderate sum for personal expenses --- I have already incurred much personal expense, answers might be obtained from within the City of London from merchants and traders and the larger parishes of Marylebone" (E.C. - Lord John Russell, 14 May 1848).

3. *ibid.*, p. 727

4. Hansard, vol. 93, p. 1283, 6 July 1847 (Wakley).

the account of every unpleasant smell. While some Members, therefore, could appeal to the awful warning of undrained districts where the inhabitants had been decimated by an explosion of fever, others could show cheerfully insanitary populations who for generations had been drinking unfiltered water and piling ordure round their doors without any catastrophic retribution.⁽¹⁾ Chadwick, who had been twice attacked, and Southwood Smith, who had had three bouts of typhus, were convinced of the danger; and when he heard remarks that the danger was exaggerated, Chadwick would recall the honourable list of casualties in the service --- the Roman Catholic priests who had visited the Liverpool Irish; the doctors, Lynch and Mitchell and Dyce Guthrie; and the Health of Towns Commissioners who had retched on the corners of dark back streets, Playfair, Smith of Deanston, and Sir Henry de la Beche.⁽²⁾ Here, he felt, in the deaths and physical discomfort of healthy, well-fed members of the middle classes was evidence to satisfy all who were not blinded by self-interest.

Openly, or under cover of such arguments, the voices of affected interests were raised against the Bill. The smoke clause roused the manufacturers; the proposal to extend municipal boundaries to take in country districts stirred up the representatives of the agricultural districts. Divett objected to the transfer to the local Boards of private undertakings for the supply of gas and water; if Parliament fixed the charges, these matters were better in the hands of private bodies. He detected in the Bill the hand of Chadwick, who would obtain under it an important and powerful position,

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1. See, for example, a letter on sanitary statistics in the "Morning Chronicle", 3 April 1848. In 1832 Shoreditch, "a district sacred to Cloacina", was most exempt from cholera, having one case per 1203 inhabitants; while the City, the best drained district, had one in 155. If this were a fact, it was an argument for abolishing sewerage altogether.
2. E.C. - Morpeth, 30 June 1847.

such as he had already secured for himself at the Commission of Sewers.⁽¹⁾ This was not the only personal attack endured by Chadwick in the course of the debates.⁽²⁾ He believed that old Poor Law scores were being paid off, by Tatton Egerton, for example, whose practice, as owner of a close parish, of pulling down cottages and drawing labour from other parishes, had been condemned in Chadwick's evidence before the Settlement Committee in 1846, and who now declared that the appointment of "a certain individual" would be distasteful to the manufacturing districts.⁽³⁾

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1. Hansard, vol. 98, p. 725, 5 May 1848.

2. He wrote to Lord Lincoln, 8 May 1848:

"May I ask as a favour that you will use your influence, in the discussion on the Health of Towns Bill, to discountenance the practice commenced by Mr. Divett, and likely in the discussion on the central Board to be renewed of attacking subordinate officers, who are not responsible. The Morning Chronicle has been attacking the bill on the supposition that it is mine. Lord Morpeth, in a way, relieved me from that responsibility. You were in possession of my individual opinions which Sir James Graham requested me to draw up five years ago. Except those members of Government who have that statement, I do not know any one who would be entitled to discuss anything on the assumption of what were my views. Except the report on the practice of interment there has been scarcely a report which I have signed that has been entirely as I wished. As a public officer it has been my duty to carry out measures very different to those I would have recommended. For years Mr. Stephen was attacked for Colonial measures; latterly Mr. Trevelyan for Irish measures, and from the commencement of the Poor Law Amendment Act, I for measures which were the work of another Department.

I would offer my protest against the continuance of this system of attack upon the absent, and really defenceless .."

Lincoln replied, 9 May 1848:

"You may rely upon my doing all in my power to discountenance the attacks upon you in the House of Commons of which you complain. I consider attacks upon any Gentleman employed by a Responsible Minister of the Crown unjustifiable. If the Bill be yours, it has been adopted by Lord Morpeth --- he will reap all the merit if it succeed and upon him must fall the blame if it fails --- this in my opinion is the only safe Parliamentary view of any question".

3. "My answer is that the acts of the manufacturing districts will speak for themselves", Chadwick told Russell, 14 May 1848. "The Mayor of Leeds applied to me to recommend to

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Provincial jealousy flared up when it was seen that London was escaping again, as it had escaped the Municipal Reform Act. Why should London be exempt, demanded Colonel Sibthorp, in preference to his own constituency, Lincoln, which was clean enough, and had not a poor man in it?⁽¹⁾ "It was in London, in stinking London, in filthy London, that sanitary measures should begin", cried Wakley, the editor of the "Lancet", adding his grumble against the "soup influence" of that "nasty turtle-eating corporation".⁽²⁾ "Help I pray you against Banks!", wrote Chadwick to the "Times" correspondent, the Rev. S.G. Osborne (6 May 1848). "He wishes to do nothing in sanitary measures until the Metropolis is included but he is most zealous he says for them. Cannot you now press forward the claims of the Dorsetshire villages, and of his own cottages to his sanitary zeal. Pray give him a sermon on the times from psalm 74. v. 21 prayer book version; "All the earth is full of

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1. Hansard, vol. 98, p. 711, 5 May 1848.
2. *ibid.*, vol. 96, p. 414, 10 February 1848.

(Continued from previous page) then an engineer to survey the town for drainage. Captain Vetch of the Royal Engineers made them the survey which I recommended. The towns improvement committee for Liverpool applied to me for advice. They took the engineer whom I recommended for a water supply; and have taken his plan. One of the Mayors of Manchester and some of the town council applied to me for advice, on which preparatory action has taken place; some time ago when I was in Lancashire a deputation of persons from Bolton applied to me for advice. The paving board at Lancaster applied to me to recommend them an engineer to make them a preparatory survey: and the person whom I recommended is now at work there. The Mayor of Warrington applied to me, to make a similar recommendation, and the preparatory survey is now in progress there, by the Engineer whom I recommended. From Eton, Rugby, and other places in the West of England, I have received similar applications. Now it is on the practical experience thus obtained, from communication with engineers specially qualified and so engaged, that I am enabled to make confident statements of the compulsory powers wanted for carrying out combined works, --- even in the places where such voluntary commencements are made".

cruel habitations", but let your voice of exhortation be raised soon".

Most significant, because it was a direct confrontation of the fundamental principle of the Bill, most powerful, because it was backed by many of the municipalities, was the attack on "that mode of foreign government which was known by the name of centralization".⁽¹⁾ It had long been the pride of the country that the Government had little to do in the management of internal affairs, declared Urquhart, the member for Stafford. He disputed both the diagnosis and the remedy of the sanitarians. If the country was in a sink of filth, it was because the House had passed laws affecting the labour and industry of the population. The Common law provided ample means for putting down all nuisances; if anything more were required, it should not be in the form of this "clumsy, encumbered, and almost unintelligible Bill" which superseded the functions of Parliament by enabling another body to set aside laws and impose taxation, but should be a simple and facile measure granting to municipal authorities the powers they needed and subjecting them to penalties if they neglected to put them into operation.⁽²⁾

Many of those who kicked at any measure of control of their own activities, however, were ready to take a fair-minded view of regulations directed at somebody else, and were even prepared to suggest how such regulations could be profitably

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1. Hansard, vol. 96, p. 1022, 21 February 1848 (Urquhart).
2. *ibid.*, vol. 98, p. 711, 5 May 1848, and p. 1175, 13 May 1848. Ashley in reply (*ibid.*, p. 779, 8 May) pointed out that there certainly were Acts on the Statute Book which were directed against the abuses complained of --- if somebody was prepared to pay the costs of legal action. "The old laws might be equal to the removal of abuses, but they were by no means equal to the institution of improvements: there was a law for removing masses of filth or noxious stench, but there was none by which you could furnish to the working classes a pure, ample, and constant supply of water".

extended. Viscount Duncan wanted to know why Morpeth had avoided the window-tax⁽¹⁾; Horsman wondered what were the "mysterious difficulties" preventing the Government from tackling the interments question⁽²⁾; Reynolds regretted the exclusion of Scotland and Ireland.⁽³⁾ These fractions of support added up to a quite considerable total, and besides the clamour of energetic interests there went up a counter cry of satisfaction that the Health of Towns Bill went so far as it did and regret that it did not go a little further.

Outside the House public attention was distracted by the exciting continental news, by the spectacle of thrones toppling and Metternich packing his bags for London.⁽⁴⁾ As in 1847 and earlier years it was a vociferous minority on either side which fought over the principles of sanitary government. The doctors and clergymen of the Health of Towns Association conducted a vigorous campaign of lecturing, letter-writing and lobbying, and drafted petitions for signature by the working classes; and Chadwick found time to supply ammunition to local leaders in strategic points.⁽⁵⁾ From the strongholds of local self-government, the City and the metropolitan parishes, rose an angry hum of disapproval. The Common Council resolved unanimously to condemn the Bill.⁽⁶⁾ No place in the world had so complete a system of drainage as London, said the City Remembrancer.⁽⁷⁾ "It would turn out to be nothing but mere

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1. Hansard, vol. 96, p. 404, 10 February 1848.
2. *ibid.*, p. 406.
3. *ibid.*, p. 420.
4. Or, as George Combe wrote from Edinburgh (10 March 1848): "Here, we are more occupied with petitions against holding intercourse with the Pope and against running railway trains on Sundays, and in denouncing education in natural knowledge without the catechism of Calvinism as infidelity, than in studying the conditions of health".
5. See, for example, his letter to Dr. P.W. Holland (29 February 1848), enumerating the points which should be included in a petition from Manchester.
6. 19 May 1848; "Times", 22 May 1848.
7. "Sanitary Condition of the City of London: letter to Lord Ashley from the City Remembrancer" (Pamphlet, 1848), p. 4.

humbug", a Builder Commissioner forecast of the sanitary movement.⁽¹⁾ "Read "Morpeth" as "Metternich", cried one Tower Hamlets ratepayer.⁽²⁾ The "Morning Chronicle" was the chief vehicle for these protests; and the most active pen in the service of local self-government was that of Toulmin Smith, whose writings gave to the opposition such shape and philosophy as it possessed. A legal antiquary of a deeply encrusted Toryism, he saw in the Public Health Act one further episode of the Whig plot by which the Anglo-Saxon institutions of the kingdom were gradually being replaced by the government of Whig Commissioners, and the ancient Common Law defences of person and property were being overthrown by "ink and paper law-making!"⁽³⁾ "If this act, or anything like it, passes into a law, it will have to be recorded in history that the Court of Star Chamber was abolished in 17 Car. I, A.D. 1641, but was re-established, with greatly increased powers, in 11 Victoria, A.D. 1848".⁽⁴⁾ His solution to the sanitary problem was admirably simple --- a closed cesspool should be provided for every house and the Highway Surveyors stirred to activity in laying down new road drains⁽⁵⁾; and to enforce public health regulations the courts leet, vestry, hundred, and county courts should be restored to their original dignity.⁽⁶⁾ There was no need for

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1. "Sanitary Condition of the City of London: letter to Lord Ashley from the City Remembrancer", p. 12
2. "Morning Chronicle", 29 March 1848.
3. "The People and the Parish: the Common Law and its Breakers", 1853, p. 14.
4. Letter to the "Jurist", 26 February 1848.
5. "The Parish. Its obligations and powers: its officers and their duties", 1854. "The making of a lined, covered, and closed cesspool, at a distance of twenty or thirty feet from the dwelling (though the farther off the better), and provided with a pump for the garden use, or for otherwise regularly emptying, of the contents of such cesspool, --- or with communication to some tank in adjoining land, if any arrangement of that kind is more convenient, --- is the simple, cheap, and effectual remedy for the nuisance now caused in very many cases by defective house drainage". (p. 302).
6. Letter to "Daily News", 30 March 1848.

a central department "to tell the People of England, from a closet at Whitehall, how each man is to make his drains and water-closets, to build his ash-pit!" (1)

From Leeds, Manchester, Bradford, Birmingham, delegates from the town councils were sent to London to protest against the Bill; but in every place where such opposition manifested itself Chadwick could count upon the support of an influential section of the inhabitants. The Health of Towns Association circulated a questionnaire to 69 of the principal towns of England and Wales, and summarised the returns in a pamphlet which breathed local suspicion of the existing authorities, and contempt for the idea that, unaided and uncontrolled, they could lift themselves out of their present squalor. (2) Nor was it true, Chadwick believed, that the town councils would offer the universal resistance to a central department that was prophesied by Divett and other disciples of Toulmin Smith. As he assured Lord Morpeth:

"When he (Divett) talks of his confidence that the towns would not submit to our dictation, the fact is as regards myself that the people of his town hearing of my being in the neighbourhood sent for me to attend a towns-meeting and also for Dr. Southwood Smith. We found our names placarded as intending to address them. The mayor gave us a dinner. I found it extremely difficult to get away and avoid the applications to see places, and I have since been in correspondence with parties in the town who are anxious that steps should be taken.

I have been applied to for advice from leading members of the Liverpool Town Council. In Lancaster, Warrington, Rugby and other towns proceedings have been taken for surveys and plans at my instance. I was also applied to from Edinburgh,

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1. "Centralization or Representation?", 1848, p. ix.
2. "Report of the Sub-Committee on the answers returned to Questions addressed to the Principal Towns of England and Wales, and on the objections from corporate bodies to the Public Health Bill", 1848.

St. Andrews and other Scotch towns: from Belfast and Dublin from Gateshead and Brighton from Eton and other places. I have also frequent applications from town surveyors and several engineers. Leeds was on my recommendation to the Mayor surveyed by Captain Vetch

The applications to the Metropolitan Sanitary Commission on the supposition (from confusion with the Metropolitan Sewers Commission) that they have some executive powers are numerous and pressing.

I think it would be well to state that such applications had already been made, and proceedings taken in anticipation that the Health of Towns bill would pass and that however indisposed any towns might be to the measure, others who understand it better might be permitted to adopt it, or in respect to self government to be allowed a choice"(1)

There were, as the "Times" wisely remarked, just and prudent limits in the capacity of a Bill as there were in the tonnage of an East Indiaman.⁽²⁾ The loss of some of the subjects which were omitted from the original draft, or were later jettisoned in Committee, was not regretted by Chadwick. The exemption of London, he considered, would not be serious if the General Board were given full powers of inquiry in preparation for a separate measure.⁽³⁾ Coke and iron manufacturers had risen in protest against the smoke clause, and its excision was judicious.⁽⁴⁾ The limitation of the duration of the Poor Law Commission had not worked well (it had encouraged some local authorities to go slow in the hope that in five years' time the Act would be repealed and the Commissioners hanged), but Chadwick was prepared to accept a term of five

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1. E.C. - Lord Morpeth, n.d., c. 10 May 1848.

2. "Times", 11 February 1848.

3. E.C. - Lord Morpeth, 30 June 1847.

4. E.C. - Lord Morpeth, 8 August 1848.

years to the Board's life as one of the least injurious concessions.⁽¹⁾ But, looking over the Bill as it emerged from the Commons at the end of June, he sighed that it was a mere wreck of what had been intended.⁽²⁾ "As it stands it will only enable the commencement of legislation to be made", he told his friends. "Great administrative wisdom and experience in the General Board and Inspectors might still extract some good from its practical operation; but that if it be put into other than the most competent hands, more evil than good may arise from it. I never could have thought that any Government would have conceded so extensively the power and authority of a central controlling Board either to pitiless self-interest or senseless clamour".⁽³⁾ It was clear that if the General Board were to exercise any real powers of initiation and supervision in the localities, those powers must be inserted in the Lords, where fortunately the friends of Chadwick mustered strongly. He wrote at once to brief the Bishop of London, Lord Ellenborough, Lord Campbell, Lord Lansdowne, and the Duke of Buccleuch, assuring them that "I have distinctly stated that I must hold myself at liberty to express my opinions on the provisions of the bill".⁽⁴⁾

How was the machinery of public health administration to be introduced into the localities? This was the fulcrum whose position determined the leverage the General Board could exert against recalcitrant districts, and much of Chadwick's dissatisfaction arose from the inadequacy of the clause to which the Commons had assented. If one-tenth of the inhabitant householders rated to the relief of the poor signed a petition, the General Board could set to work. (The Commons had rejected

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1. E.C. - Morpeth, n.d.
2. E.C. - Sir George Larpent, 20 June 1843.
3. E.C. - William Lee, 10 July 1843.
4. E.C. - Bishop of London, 16 June 1843.

on sight the original optimistic suggestion that one householder in fifty, whether he was a ratepayer or not --- he "might really be of the working classes", Chadwick told Lord Lansdowne⁽¹⁾ --- should have the power to bring all the apparatus of sanitary inquisition to bear upon the obdurate forty-nine). "It is well to get the smallest wedge", declared Chadwick, his metaphors becoming hopelessly mixed in his annoyance, "but we should be sure that it is really a wedge, and not a rotten staff. For opening the worst conditioned districts the provision as it now stands will I fear be a mere rush".⁽²⁾

"As it stands I see no probability whatsoever of the introduction of the measure into the most important places. It would require three or four thousand rate-payers in Liverpool or Manchester to be moved and to sign for the introduction of the act. Some of the trades unions and some of the Chartists have begun to notice the measure. It has been called, as it is properly a poor man's measure, and it will not escape them, that the initiation of it is given to another class, the rate payers who will not feel themselves aggrieved, or have any particular interest in it, and are yet biassed against it from a dread of the increase of the rates.

I do not see how any one could get up in the Commons and contend that where there was a heavy infantile slaughter, or where the labouring classes are grievously ravaged by epidemics there shall be no intervention except on the initiation of the middle classes".⁽³⁾

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1. E.C. - Lord Lansdowne, 13 July 1848. "As it stood, if any fifty of the inhabitants of Yorkshire petitioned the Commission, down came the inspector, and upon his report the whole kingdom might be included, under the Bill, in one district" (Henley; Hansard, vol. 93, p. 723, 5 May 1848).
2. E.C. - Lord Lansdowne, 13 July 1848.
3. E.C. - Lord Lansdowne, 13 July 1848. The letter concludes: "I think it would be well that the provision as it now stands, which I believe came from Mr. Henley and the protectionists should be distinctly placed to their account, as in a new position, as protectionists of epidemics and excessive mortality".

There must then be some formula for intervention, which, once recited, would bring the Board's Inspector posting down from London, whether the local tradesmen were ready to give him a welcome or not. The possible formulae were canvassed in turn by Chadwick and the Bishop of London, who had expressed his willingness to introduce the "Poor Man's Clause" in the Lords. The excess of deaths from zymotic diseases above the general average for the towns of the whole kingdom might be taken, suggested Chadwick, or --- which would be more acceptable to the squires --- above the average for the towns in a county. ("They could not say that there should not be interference in behalf of their worst conditioned towns in the county"). In 1841 the deaths from epidemic diseases formed 21 per cent. of the total; he would propose intervention in any place where the proportion rose above 20 per cent. But in the past the registration of the causes of death had frequently been tampered with, and to check any ratepayers' trickery, therefore, they should have at least one further test. Farr's advice was that it would be best to take the deaths of children under five, which in 1841 averaged 38 per cent. of the whole. "Surely", cried Chadwick, "38 per cent. of infantile deaths and 20 per cent. of deaths from epidemics to be protected against authoritative intervention ought if not the Commons to satisfy Moloch himself! What a piece of evidence of our barbarism must not this hereafter appear to be". He would like also to have "some direct reference to the poor man as a class", on the basis of the expectation of life given in the Northampton table.⁽¹⁾

When the question came to be discussed in the Lords' Select Committee, however, the Bishop was not present, and --- with the best will in the world, as his friends assured Chadwick --- they struck out the "Poor Man's Clause",⁽²⁾ to which they

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1. E.C. - Bishop of London, 12 July 1843.
2. E.C. - Bishop of London, 20 July 1843. "What their objections may be, I cannot conceive --- except that the Bill which before would have been inefficient and a nullity as to the worst places would have been with the amendment workable".

thought the Commons might object, and inserted a smoke abatement clause, to which the Commons certainly would not consent. "The whole of the alterations in the Lords will, with the present mode of initiation, make bad worse", Chadwick told Morpeth with justifiable irriatation. "I have always confined myself to the matter within public cognizance already, Sewerage, Cleansing, Water Supply, in the first instance. I have never suggested meddling with trades and if I had been in the way I should have advised their omission, well knowing how potent they are. The smoke clauses will now bring into the field all the manufacturers against general sanitary measures. I know places in the North where two or three Manufacturers may by their influence with the ratepayers, almost the whole of whom are under their influence, effectually prevent any application whatsoever. Then all the butchers, all the fishmongers, all the poulterers, who are to be subjected to inspection, all the lodging-house keepers, all the owners of the classes of houses having cellar tenements, and persons carrying on trades which are nuisances, must be in array against the Bill, --- all these are ratepayers; and the others of the middle classes, who will be frightened with stories of the increase of rates, and yet we are to expect unheard of combinations amongst them for the introduction of measures which are to benefit chiefly the working classes!"⁽¹⁾

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(21 July 1848)

1. The same argument figures in a petition to the Lords from the Working Men's Association ("Times", 7 August 1848): "Your petitioners would pray your right honourable house to consider the powerful nature of the interests interfered with by the proposed measure; of which we need only name to your lordships the owners of manufactories and steam furnaces; the owners of slaughterhouses, and many persons connected with offensive trades; the shareholders of water works, and the tradesmen who might be influenced by these parties; --- and to reflect upon the little probability that there is of any large number of ratepayers being induced to come forward in opposition to such interests to take a step in behalf of the class represented by your petitioners, who are almost entirely precluded, as the bill now stands, from applying in their own behalf, however severely they or their families may be visited with sickness or death in consequence of the defectiveness of the existing sanitary arrangements".

Despite Chadwick's protests the Lords insisted on retaining their smoke prevention clause; but in other respects the Bill was improved before it was returned to the Commons. The Bishop of London appeared in the House to press the importance of his "Poor Man's Clause", and it was re-inserted without opposition. The hands of the General Board were strengthened by providing that the local authority must seek their sanction before mortgaging the rates, and that the local surveyor should be irremovable except with their consent. As a further precaution against jobbery, an individual ratepayer was given the right to appeal to the General Board against any exceptionable expenditure by the local Board. Altogether, as Chadwick told Joseph Hume, "the Health of Towns Bill as amended by the Lords is to some extent a working measure".⁽¹⁾ But would the Commons accept such large alterations in the original Bill? "I understand from the Speaker", Morpeth informed Chadwick, "that the entire interference with the Bill is rigidly considered, so irregular, that a general condonation must cover all".⁽²⁾

Chadwick's fears in this instance proved groundless, however. John Bright rose immediately to attack the smoke clause, and, as Chadwick expected and hoped, it was dropped without further discussion.⁽³⁾ There was an anxious moment when Morpeth deleted the Bishop's version of the "Poor Man's Clause", but he replaced it at once with a clause suggested by the Registrar General, which empowered the General Board to apply the Act to any place where the deaths from any cause exceeded 23 per thousand on the average of the previous seven years. It was not so good a test as the infantile mortality, Chadwick told him; but, he added with satisfaction, "I have had it tried over, and I believe it will give more places".⁽⁴⁾ The

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1. E.C. - Joseph Hume, 5 August 1843.
2. Morpeth - E.C., 26 July 1843.
3. Hansard, vol. 100, p. 1173, 7 August 1843.
4. E.C. - Morpeth, 8 August 1843.

sanction of the General Board to the mortgaging of local rates was preserved "as by fire", and also the appeal from aggrieved owners or occupiers.⁽¹⁾ "In other respects it was lamed; it was very badly supported; many friends were absent, and parties directly interested against the Bill mustered strongly".⁽²⁾

The Public Health Act of 1848 established a Central Commission, terminable in five years, and consisting of three members, with the First Commissioner of Woods and Forests as President.⁽³⁾ Their powers of initiating sanitary measures were strictly defined: their aid must be invoked by a petition signed by one-tenth of the ratepayers; failing a petition, they could take action only where the death rate from all causes had reached the figure of 23 per thousand.⁽⁴⁾ In either case, a preliminary inquiry would be conducted by a Superintending Inspector, who would submit a report to the General Board.⁽⁵⁾ The Act would then be applied by Order in Council; or, in districts where a Local Act was already in force or where the boundaries were to be altered, by a Provisional Order, which would not become effective until approved by Parliament.⁽⁶⁾

In districts possessing municipal institutions, the Town Council was to be the public health authority.⁽⁷⁾ Non-corporate districts were to be given an entirely new authority, a Local Board of Health, the size of which would be specified in the constituent Order.⁽⁸⁾ Middle class influence in these Boards was jealously guarded, members being elected by plural voting, ranging from one vote for persons with property to the annual value of £50, and rising by one vote for every additional £50 to a limit of six votes for those possessing over £250.⁽⁹⁾ As officers the local Board were to appoint a clerk, a treasurer,

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1. Morpeth - E.C., 8 August 1848.
2. E.C. - Bishop of London, 8 August 1848.
3. 11 & 12 Vict. c. 63.
4. *ibid.*, c. 8.
5. *ibid.*, c. 9.
6. *ibid.*, c. 10.
7. *ibid.*, c. 12.
8. *ibid.*, c. 14.
9. *ibid.*, c. 20.

an inspector of nuisances, and a surveyor; for the removal of the last of these the approval of the General Board was necessary.⁽¹⁾ If they thought fit, they might also appoint a medical Officer of Health; the appointment and dismissal of such an officer were subject to the approval of the General Board, but his remuneration was to be determined by the local authority.⁽²⁾ Chadwick had thus failed to make obligatory the appointment of the most valuable of the local officials; and though both surveyor and Officer of Health were secured from summary dismissal, their independence of view was threatened by the fact that their salaries were fixed by the local Board.

Over forty clauses dealt with the powers to be exercised by the new local authorities⁽³⁾, the effect being, as Chadwick pointed out, that for the reasonable expenses of an Inspector's survey, a district would be invested with all the advantages of a costly Local Act. In their details the provisions showed that six years' campaigning by Chadwick and the Health of Towns Association had not been wasted. Thus, it was provided that no new house might be built without drains of the size, materials, level, and fall which appeared necessary on the report of the local surveyor, nor without a sufficient water-closet or privy or ash-pit; a house within a hundred feet of a sewer might be required to communicate with it; otherwise it should discharge its refuse into a cesspool at a distance directed by the local Board. In the default of the owner, the local Board were empowered to construct such communicating drains, and recover the costs so incurred.⁽⁴⁾ The local Board --- to take a further example --- were given powers to provide a water supply, either under public management or on contract with a private company; the supply to be pure and wholesome, and at "such Pressure as will carry the same to the top Story of the highest Dwelling House within the District supplied". But it

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1. *ibid.*, c. 37.
3. *ibid.*, c. 41 - 85.

2. *ibid.*, c. 40.
4. *ibid.*, c. 49, 50.

was not lawful for the local Board to supply water if there were already a water company in the district able and willing to do it adequately, on terms fixed by an Inspector or an arbitrator. A householder might be required to obtain a water supply, if it could be furnished for a sum not exceeding 2d. a week.⁽¹⁾

A General District Rate for the purposes of the Act would be levied on the occupiers of property rated to the relief of the poor, and Private Improvement Rates imposed for works benefiting individual occupiers.⁽²⁾ To raise money for works of a permanent nature, the rates might be mortgaged by the local Board. Such mortgage could be made only with the consent of the General Board.⁽³⁾

Tenuous as was the element of "Centralisation" in the Act, the Lords, responding to Chadwick's concealed guidance, had left the General Board with more aggressive functions than the Commons had been prepared to permit. The central department conducted the preliminary inquiry; it recommended that a sanitary district be formed; it gave its approval for the removal of the surveyor and the Officer of Health, and for the appointment of the latter; it sanctioned mortgages for public works; it heard appeals by parties aggrieved by the proceedings of the local board. That in sum was the amount of its legal powers. By stretching these powers to the utmost, by extending the imponderable authority which superior information and capable officers lent to a Government department, by employing persuasion where imperatives were barred, Chadwick hoped even yet that the new Board would not fail in its appointed task. The original Bill was not his, as he pointed out to the critics who saddled all its imperfections upon him⁽⁴⁾; and the Act which

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1. *ibid.*, c. 75, 76.

2. *ibid.*, c. 87, 88, 90.

3. *ibid.*, c. 107, 119.

4. He had foreseen that he would be used as a whipping boy. Writing to Edmund Ashworth (26 January 1847), he had observed: "Sanitary measures we shall carry by halves: i.e. imperfectly and as usual I expect abuse for the imperfections on which I have remonstrated".

had eventually emerged represented no more than what his adroitness and tenacity had managed to preserve after Morpeth's draft had been shot to pieces in the Commons. It was a continual lament of Chadwick's that the schemes of his conception had to be put into the clumsy hands of politicians, and that, after a Parliamentary mauling, the resultant patchwork of compromise and amendment was passed back to him to make into a practical working measure. (1)

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1. Criticism of the Public Health Act usually develops into criticism of Chadwick, to whom its parentage is attributed. The most stinging of these attacks is probably that by J.L. and B. Hammond in their "Lord Shaftesbury" (p. 159):

"Parliament might have set up local authorities, given them wide powers, called on them to prepare plans for drainage, water supply, streets, buildings, open spaces, destruction of slums and cellar dwellings, and the future development of the towns. A central body might have been established at the same time to give guidance, to enforce a minimum standard, and to stimulate local action by grants in aid. This method would have put the relations of the local and the central authority on a good basis, and it would have kept to the front the main character of the problem, as a problem in the organisation of town life and growth. If, at the same time, Parliament had applied Adam Smith's teaching about taxation to the new land values created by the rapid conversion of country into town, these towns might have been made attractive and healthy without any ruinous cost"

There is an air of unreality about all this. It is easy to see that the scheme outlined in the paragraph quoted would have provided a better solution to the sanitary problem than the Act of 1848; but it is easy to see this because we stand so far from the event, and have the lessons of past experience, including the revealed weaknesses of the first Board of Health, to guide us to a balanced judgment. The scheme described, in other words, is a quite artificial alternative, constructed by a twentieth-century^{century} historian in the light of three-quarters of a century of administrative experience. Who, in 1848, was making proposals of this nature? Whence, in 1848, would the support have come for any such scheme? (except from Chadwick himself, who would particularly have approved of the suggestion that the new land values should be taxed). How many towns possessed the vision and commanded the technical skill to execute such plans? What chance was there of grants-in-aid from a Government which at the time was nervously slashing expenditure? In general, it seems that the Hammonds make too little allowance for the necessarily experimental nature

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He might with reason deny the paternity of this mongrel measure; but sufficient remained of a recognisable structure for it to be acknowledged as at any rate a family connection of the Poor Law Act of 1834. Such strength and purpose as the Act exhibited, it owed chiefly to Chadwick. This is evident in the ground plan it lays down for the relationship between the local authorities and the central Government. In the attitude towards this problem of the Poor Law Act of 1834 and the Municipal Corporations Act of 1835 there was a sharp antithesis, the resolution of which supplies the key to half a century of administrative history. Apart from requiring Treasury sanction for the raising of loans by a Corporation and for the alienation of its property, the Municipal Corporations Act did little to trim the traditional autonomy of the local authorities. On the other hand, apart from the control of police, it gave them no new powers. It left them, diverse in their customs and powers, unequal in their areas and reserves of skill, to meet the thrust of the industrial age as best they could, with no Minister or State department charged to guide and teach them, and if necessary to admonish and correct. Against this conception, Chadwick had opposed the principles of the Poor Law Act, those

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(Continued from previous page) of this first essay in sanitary legislation. Furthermore, in seeing in its defects a reflection of Chadwick's limitations of mind and character, they give insufficient weight to the fact that the measure (for the drafting of which he was not responsible, in any case) had to run the gauntlet of the House of Commons --- that in its final form it represented not what Chadwick wanted but what he could get. They dismiss the Act scornfully as a "small scheme". Small as it was, it was as much as the Commons could swallow; and very much bigger, in fact, than the sadly botched measure which had been passed from the lower House to the Lords, where Chadwick's friends managed to repair some of the damage done by the Commons critics.

Throughout their treatment of the General Board, the Hammonds appear to have placed too much reliance on the evidence of Lord Seymour. The value of that evidence will become apparent later. (see ~~xxx~~ below, pp. 470-7, 562-5, 617-24).

administrative ideas which in the jargon of the time were known as "Centralisation" --- the beneficent tutelage of a specialised central department, exercised through the media of the departmental circular and an expert inspectorate; areas cut to a pattern drawn by the technical demands of administration; a uniform system of ad hoc bodies in the localities to serve as the instrument of central policy, entrusted with a minimum scope of function and expected to attain a minimum standard of performance. Nothing so clear cut as this can be seen, of course, in the Act of 1848. But it was a great step forward that a central Board should have been established, an embryo Ministry of Health, with aggressive powers, however slight at first, to make head against sanitary evils; and that a beginning should have been made towards imposing a code of public health on the country, defining legal minimum standards for drainage and water supply. It was a great point gained that under the Act considerable powers for the defence of the public health and the construction of public works could be readily and cheaply extended to authorities which had formerly lacked them. (1)

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1. Far from restricting the functions of local authorities, Morpeth explained in reply to the anti-centralisation party, the Act would confer powers of drainage, cleansing, and paving on 92 corporate towns which were at present without them, and on 158 more which did not possess such powers undivided. "There were at present only 29 English municipal corporations which had local Acts under the Mayor and Corporation exclusively; there were 66 corporations exercising powers jointly with the Commissioners; there were 30 towns in which the corporations had no powers at all, but where the powers were exercised independently by commissioners; and there were 62 corporate towns which had no local Acts whatever within the boundaries of the municipalities. Of the other towns in England, not being corporate towns, to which this Act might apply, there were 107 having local Acts; and there were 276 towns or populous districts, containing above 5000 inhabitants, without either corporations or local Acts. Upon these towns this Bill would confer powers which they had never yet enjoyed in any way. He might also mention that there were in England 175

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The cholera marched from Moscow to the Danube as the Commons began to discuss the Public Health Bill; scattered cases were reported from Berlin as it passed the Lords. The dread shadow overcast the debates, and from time to time legislators cast uneasy glances over their shoulders at its steady advance. It was not specifically the cholera at which the Bill was aimed, Morpeth had told the Commons, but "the abiding host of disease, the endemic and not the epidemic pestilence, the permanent overhanging mist of infection, the annual slaughter doubling in its ravages our bloodiest field of conflict".⁽¹⁾ However, many members entertained the impression that in voting for the Public Health Bill they were raising defences against the cholera, that "it was absolutely necessary for the safety of all".⁽²⁾ The subsequent discovery that it was designed to provide large permanent works for drainage and water distribution, works which could not be ready anywhere in time to affect or mitigate the epidemic, was not without its influence in drawing off support for the later measures of the General Board. To meet the cholera the Board had only the exiguous powers of the Nuisances Removal and Diseases Prevention Act, as amended in 1848⁽³⁾; and these powers were to be granted only when the Privy Council deemed the danger sufficiently acute, and their duration was limited to the six months of the Order in Council which put them into force. During the period of such Order a medical member might be added to the General Board of Health; and the Board were authorised to issue directions and regulations for the cleansing of streets and dwelling houses, the execution of which

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(Continued from previous page) towns, containing above 5000 inhabitants, which had local Acts, and 296 which had no local Acts at all; and it was upon these 296 towns which had no local Acts, and upon the 158 corporate towns which had at present either no powers at all, or divided powers, that his Bill would, for the first time, confer the exclusive power within their boundaries of cleansing, sewerage, paving, and providing a supply of water". (Hansard, vol. 98, p. 736, 5 May 1848).

1. *ibid.*, vol. 96, p. 392, 10 February 1848.
2. *ibid.*, vol. 98, p. 770, 8 May 1848 (R.A. Slaney).
3. 11 & 12 Vict. c. 123, 4 September 1848.

was to be superintended by the Guardians of the Poor (in Scotland the Parochial Boards).⁽¹⁾ Another year elapsed, and the epidemic was nearing its height, before powers were granted to the Board or the Poor Law Guardians to institute prosecutions for violation or neglect of the Board's regulations.⁽²⁾ From the first, then, in this important field of their activity, the one which for twelve months bulked largest in the public eye, the Board's authority was circumscribed by an ancient jurisdiction stubbornly maintained by the Privy Council Office. Ostensibly, from their title, charged to protect the health of the kingdom, they must await the sanction of another department, which lacked both their knowledge and their responsibility, before they could strengthen their membership by the addition of a medical expert, and before they could take preparatory measures to deal with a threatening epidemic.

Throughout the 1848 session Chadwick had been pressing forward with another important sanitary measure, a Metropolitan Sewers Bill, to give statutory recognition to the consolidated Commission set up in the previous December. By this Bill he hoped to recast the Commission more to his liking, and to rid it of the weaknesses which had already made themselves apparent in its structure and personnel. He had wanted, as we have seen, a small sanitary executive for London, composed of men carefully selected for their knowledge and enthusiasm for the work, to give close day-to-day supervision to the technical details. The Commission of 23 he considered was too numerous and fissiparous for the task.⁽³⁾ It included a strong contingent

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1. *ibid.*, secs. xi, x.
2. 12 & 13 Vict. c. lll, secs. iii, iv.
3. "At the best I for one never conceived an administrative board, acting at monthly meetings, and at special meetings fortnightly even where ~~all~~ the members were all competent, and all unanimous, the best possible or the only possible

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from the Metropolitan Sanitary Association, Lord Ashley, Lord Ebrington, R.A. Slaney and Dr. Southwood Smith; the physiologist, Professor Richard Owen, one of Chadwick's closest friends; the geologist, Sir Henry de la Beche; and two distinguished physicians, Neil Arnott and Sir James Clark. These could certainly be expected to follow Chadwick's lead; and in addition he could count upon the support of the chairman, Lord Morpeth, the First Commissioner of Woods and Forests, so long as he did not race too far ahead of the policy of the Whig Government. But four of the old district Commissioners had also been nominated, and with one of them, John Leslie, a vestry politician from the parish of St. George's, Chadwick at once found himself engaged in the bitterest of controversies.⁽¹⁾

To Chadwick's consternation he found that Morpeth was contemplating a step which would add strength to this dissident minority led by John Leslie. Fearing an outcry if the Bill did not embrace the principle of representation, he was leaning to the view that each Union and select vestry should elect a member to a Metropolitan Board of Sewers, the right of the City to nominate its due proportion being of course reserved.⁽²⁾

Chadwick rejected with scorn the idea of such a "Sewers Parliament", where the ignorant delegates of Marylebone and St. Pancras would debate scientific principles of drainage which were "as peculiarly unfitted for discussion in popular assemblies, and voting on them as are questions of chemistry or surgery".⁽³⁾ Bad as the works of the superseded Sewers Commissions had been, he told Morpeth, they were better than

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{Continued from previous page} contrivance for carrying out such a work. For if any work be of importance enough, involve pecuniary loss enough, apart from sickness, the infliction of ill health, demoralisation enough, to render it economical to have measures carried out by daily, hourly uninterrupted sittings it is surely this". (MS memorandum, n.d.)

1. See below, chap. II.
2. Morpeth - E.C., n.d.
3. "Metropolitan Special Commission. Notes on the Evidence examined", MS, 7 October 1847.

those of the parishes. (1) His own preference was indicated by the approval he gave to a suggestion of the Lord Chancellor's, that the Commission should be confined "as much as possible to Government subordinates". "At this time", he urged, "we might with such subordinates give evidence of political importance: that it was possible for such subordinates to carry out a reform such as local representative bodies had never dreamed of: to beat commercial companies in efficiency, and even private builders in respect to the economy of works, and win the approbation of the public to the extension of new power without the ordinary cumbersome machinery". (2) In the event, however, neither Morpeth's parliament of parochialists nor Chadwick's select Board of civil servants found favour with the Government, and it was decided that the Metropolitan Sewers Commission should remain substantially unaltered, apart from the introduction of five representatives of the Common Council.

Chadwick failed also in his efforts to bring the enclave of the City within the jurisdiction of the consolidated Commission. "There is a natural desire to carry out measures and to postpone conflicts", he told Delane, "but the fact is that the feeling in the House of Commons against the exemption of the Corporation is so strong, that it is believed that it would not permit separate legislation. In the case of drainage nature determines what shall be the area of jurisdiction, and the City could not be drained separately except on an enormous cost". (3) To Lord John Russell he wrote: "The retention of the nuisance of a Cattle Market in the centre of the Metropolis, and the obstinate conflicts of the Corporation against various proposals of amendment, have brought out in strong light its undue powers in questions affecting the whole metropolis, of which it is only about one fifteenth part in houses, and one tenth in rental They stated that they

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1. E.C. - Morpeth, 4 August 1848.
2. E.C. - Morpeth, 11 September 1848.
3. E.C. → J.T. Delane, 24 February 1848.

had done much. What they have done has been examined, and found to be very little and very bad, and the condition of the population in the poorer districts to be much worse than had been before demonstrated: at every step the declarations of the Corporation witnesses have been falsified".⁽¹⁾ The Health of Towns Association published a sensational report on the state of the City, based on facts supplied by Chadwick. Both sides circulated petitions for signature among the parishes. Pamphlets and articles in the "Morning Chronicle" were addressed by City aldermen to other local authorities in the provinces to stir opinion against sanitary centralisation. Toulmin Smith appeared before the Metropolitan Sanitary Commission, and Chadwick put him through a "stout cross-examination"⁽²⁾; a few weeks later the irascible antiquarian was accusing Chadwick of refusing him the opportunity to revise the notes of his evidence, and Morpeth implored his colleague not to give him the opportunity of "kicking up a dust".⁽³⁾

The Corporation were worsted in the public controversy, but in the lobbies the "soup interest" prevailed. The Health of Towns Association, believing that their agitation had stopped the separate Sewers Bill promoted by the City, were amazed when they found that somehow it had got into the Lords. The Metropolitan Sewers Act of September 1848 was thus obliged to recognise the conjoint authority of the Metropolitan and the City Commissions of Sewers.⁽⁴⁾ The defences of the City garrison were still proof against the drive towards consolidation.

One day in May 1848, in the middle of the struggle for the Public Health Bill, a clerk waited on Chadwick at Gwydyr

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1. E.C. - Lord John Russell, 1 May 1848.
2. E.C. - Morpeth, 29 April 1848.
3. Morpeth - E.C., 29 May 1848.
4. 11 & 12 Vict. c. 112.

House with a request for unexpected information --- how his name should be entered for the Companionship of the Bath.

"All things and Lord John's previous displeasure considered, I was not a little surprised at the honour", he confided to a friend.

"The Prince had made the recommendation as an observer. He had, I found, taken an interest in Sanitary questions and had read the reports.

I have had one interview with him on the subject of the improvement of labourers dwellings.⁽¹⁾ I do not remember that I was ever better questioned. I must be strongly biased towards him, but from all I hear of him he appears to be a person who divested of his rank must take a very high position".⁽²⁾

The C.B., of which this was one of the first awards for civil services, was the only official recognition that Chadwick's labours were to get until the last few months of his long life. It was well-timed. At the end of the 1848 session Chadwick could look back on a decade of continuous agitation and inquiry in the cause of public health. At last, crowning the ten years of drudgery, a Public Health Act was on the statute book. The machinery for its execution at the centre and in the localities was in process of construction. In London a single authority was at work under his guidance, planning the drainage and water supply of the whole capital. Slowly, but with gathering momentum, the new values which the "Sanitary Idea" set before society were permeating the minds of law-makers and administrators.

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1. See below, p. 589.
2. E.C. - W. D. Christie, 29 May 1848. He told W.H. Hickson: "It was an unexpected and to me a strange affair not initiated by the Government". (9 May 1848). To Sir George Stephen he wrote (19 May 1848): "The newspapers have knighted me, but I am only honoured as a companion of Knights --- a civil companion of the Order of the Bath which on the whole is quite as well as I have no private fortune to sustain the additional expense which a higher honour might require".

PART TWO.

THE GENERAL BOARD OF HEALTH,

1848 - 1854.

CHAPTER 10CHOLERA, 1848 - 1849.

The six years Chadwick spent at Gwydyr House were the happiest in his official career. He lost for a time the sense of frustration which at the Poor Law Commission, "where all was going back under the evil influence of the Lewis's"⁽¹⁾, had weighed down the natural buoyant optimism of his spirit. Working twelve or fourteen hours a day; taking up with zest the burdens which fell from the fatigued hands of colleagues and subordinates; sitting at his desk in Gwydyr House, and feeling an intricate administrative machine respond to the thrust of his will; sending his scouts posting to some foul place to root out nuisances and bad smells, and put chastened local authorities on the cleanly path of tubular sewerage and constant supply; drafting reports and memoranda on evils yet unconfronted, and Bills and regulations that would set them to rights; --- so occupied Chadwick was more content than at any time since the Government had put the Poor Law inquiry into his hands.

That self-esteem of his which at times degenerated into arrogance, his inflexibility of thought, his irritability in the face of criticism, combined to make him an uncomfortable colleague. At the Poor Law Board he had shown that he expected to be first in authority as he was first in knowledge; and that if he could not rule, he would be leader of the opposition. By good fortune, rather than by conscious intention on the part of the Cabinet, he now found himself associated with two men who were fundamentally in agreement with his views, and who in consequence either could see no objection to his proposals, or curbed their opposition for the sake of a smooth-running unanimity.

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1. E.C. - W.D. Christie, 29 May 1848.

The reformers had indeed been put in office: Chadwick, the brains of the public health agitation, Southwood Smith, its chief organiser, Lord Ashley, the chairman of the London Health of Towns Association. Chadwick, waiting in trepidation for the name of the colleague whom the ~~unpredictable workings~~ of patronage and party politics would thrust upon him, was delighted at Ashley's appointment. "It afforded to the Country a guarantee of earnestness, sympathy for suffering, singleness of purpose in labouring for its relief", he assured Ashley. "I shall labour under a deep feeling that I have no time to lose", he went on. "You I hope may look to more years, and to see more of success". (1)

They presented a strong contrast, the eupeptic Chadwick, who had his disappointments but never his doubts, who entered on every task with such unclouded confidence; and the self-questioning Ashley, with his "prolonged fits of despondency" (2), "whose views are usually the reverse of sanguine". (3) One characteristic they had in common: they both liked their own way; and it is a remarkable fact that in six years of collaboration these two masterful men never clashed. Partly, perhaps, it was because there was a natural division of function between them. For Chadwick undisputed authority at Gwydyr House, the shaping of measures, the delights of power wielded behind the scenes; for Ashley the Parliamentary limelight, the influencing of audiences, the satisfaction of doing good conspicuously. In this way the clauses that Chadwick had had in mind since the time of the Sanitary Report appeared before the public in 1851, and went down to history as "Lord Shaftesbury's Lodging Houses Bill". (4) Their agreement was based, however, on something deeper than complementary

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1. B.T. - Lord Ashley, 28 September 1843. He told Morpeth that Ashley's appointment "will promote the impression that the measure is regarded as a poor man's measure" (15 September 1843).
2. E.C. - F.O. Ward, 1 June 1855.
3. E.C. - ? , n.d., c. 1852.
4. E.C. - W. Charles Verge, n.d., c. 1890.

capacities and spheres of action. Lord Ashley, the Evangelical of the Evangelicals, and Edwin Chadwick, who probably never felt any religious emotion in his life, had a body of beliefs in common, and the currents of their thought --- springing from sources so widely separated --- yet ran in parallel channels. They dreaded that the savage indocility of the neglected workers might organise itself behind the Trade Union leaders and the Six Points men. They maintained that if a Chartist millennium were to be averted, the governing classes must free the governed of their "too quick sense of constant infelicity", by improving the physical conditions of their lives, and by bringing them under the influence of that judicious education whose conservative power had been known to the privileged since the days of Plato. They saw the remedy in the intervention of the impartial power of government to check the more obvious crudities of exploitation, and to raise a bulwark for the unprotected against organised economic interests and local governing cliques.

Far from colliding, therefore, these two strong wills supported and encouraged each other, giving to the activity of the Board a multiplied energy. There was firmness, too, in the unobtrusive Southwood Smith, who at the age of seventeen had thrown up a scholarship for conscientious reasons, and who was fond of saying that "Life is not long enough for us to reconsider our decisions".⁽¹⁾ But he was slow --- "deliberate", Chadwick phrased it, to avoid the less kindly adjectives employed by others --- and at times of pressure Chadwick fretted to see papers accumulating in the Doctor's unhurrying hands. When Southwood Smith suggested that he might act as Secretary to the new Board, Chadwick was firm in his refusal. The post was inconsistent with the Doctor's business habits.⁽²⁾ Eventually he entered the Board by a

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1. C.L. Lewes, "Dr. Southwood Smith", p. 4.

2. "I must say that in pressing you as I have done from time to time for public employment I have had much to bear up

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side-door --- the clause of the Nuisances Act which permitted the appointment of a medical member.⁽¹⁾ It was not a gracious entrance for a man whose name was linked with Chadwick's as a pioneer of sanitary reform, nor was it a propitious introduction of medical science to the counsels of the Board. There was always a hint of supercilious amusement, not untouched with jealousy, in Chadwick's attitude to the Doctor, whose heart was bigger than his head.⁽²⁾

The easy-going Lord Morpeth was never quite at home at Gwydyr House, with the ebullient Chadwick and the sombre, moody Shaftesbury, both in their different ways so earnest in their sanitary labours. Chadwick he sincerely respected, but found him, with his strong-minded views about every subject that arose, a constant source of embarrassment. He thought it wise to warn at once this formidable colleague of his, who was entering office with expectations sharpened by a series of disappointments, and who over a decade had been maturing large scale plans of reform. "Whenever I may be inclined upon any occasion, such as I hope and believe will be rare, not fully to go along with you, it will probably arise from a wish to temper too sudden a strain after perfection by what I may feel to be the most practicable modes of dealing successfully with

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(Continued from previous page) against. One point which I would allude to, has been slowness, or as it has been expressed dilatoriness in the disposal of business. You are spoken of as slow and dilatory at the Health of Towns Association, at Knights; and I must say that at times and in emergencies as I have considered them, I have been fretted at the pace in the execution of the work. I am convinced that it would excite out door surprise, to see you connected with the new work as "Secretary" ... (a position) ... inconsistent with habits which I will call of deliberateness rather than by the dislogistic terms applied to them".
(H.C. - Southwood Smith, 11 August 1848).

1. "London Gazette", 5 October 1848, p. 3615.
2. "I will pass over for the present much of what I must say of what your friends have been allowed to write in respect to your position in relation to the prosecution of the principles of Sanitary measures which are now carried, but which writing I must take an opportunity of noticing".
(H.C. - Southwood Smith, 11 August 1848).

Parliaments and Bodies of men". (1)

There was no question who was master. The voice of the Board was the voice of Chadwick. The majority of the documents they issued came from his pen; the remainder were revised by him, frequently to the extent of being almost re-written. When Ashley and Morpeth spoke in the House, they were briefed by Chadwick. The Poor Law mutineer had at last a command of his own, and he was fortunate to have it manned by men who were ready to give a proper deference to his massive knowledge, and^{who} would not dissipate time and energy in untidy dissensions.

The first task was to get a staff together. The Government were uneasily awaiting an attack on their expenditure which was threatened from all sides in the coming session. When Chadwick called at the Treasury, Sir Charles Trevelyan, the Permanent Secretary, assumed an expression "almost of fright at the idea of being asked for any money; and before I could enter into any explanations with him he began to exhort that expense might be spared". But when Chadwick outlined his modest demands, he "relaxed, and highly approved". (2) A Secretary (Henry Austin) at £400 a year, an Assistant Secretary (Professor Bain) at £300, one copying clerk, the messengers and housekeepers already on duty in Gwydyr House (3) not even the most apprehensive of Treasury officials could charge the Board with extravagance in staffing an office which was to have control of a new and complicated field of administration, and to conduct correspondence with local authorities in all parts of

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1. Lord Morpeth - B.C., 4 September 1848.
2. B.C. - Lord Morpeth, 15 September 1848. Cf. G.C. Lewis - Francis Head, 28 September 1848: "Economy is now the order of the day, as Charles Wood was at last compelled to propose a loan of two millions. All establishments are now to be reduced to the lowest footing compatible with efficiency". G.C. Lewis - Francis Head, 24 November 1848: "The Treasury thinks a grant of £100 is now a great concession to anybody. All estimates are undergoing a severe revision". ("Letters of G.C. Lewis", pp. 134, 138).
3. Board of Health - Treasury, 26 September 1848.

England, Wales and Scotland. Chadwick, who had cut his requirements to the bone to avert Treasury opposition, told Morpeth that "when we have occasion, however, we must protest against their economising the means of economy in these times of public pressure".⁽¹⁾ When, a week later, his own salary was publicly announced at £1,200 instead of the £1,500 he had expected, he felt that the time for protest had arrived. It was "lower than that of an Enclosure Commissioner, lower than that of an Under Secretary in the Poor Law Commission, lower than that of an Usher of the Black Rod, or than that of a Town Clerk of Manchester and Liverpool, not to speak of the Secretaries of railway and trading companies".⁽²⁾ He got his £1,500.

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1. E.C. - Morpeth, 15 September 1843. "To begin with half legislative powers is bad enough, but the present pressure on the revenue is pleaded for restricting us to quarter measures of staff". (E.C. - Ashley, 23 September 1843).
2. E.C. - Morpeth, 30 September 1843. On 7 November he told Morpeth, "If the salary of £1,000 had been kept as at first announced, I tell you frankly I should have accepted it under protest and taken the chance for the sake of the measure I had given directions for a search for a suburban dwelling and made inquiries myself being determined to reduce my expenditure to a still narrower compass. The trouble of this change would have interrupted important public business; and after your second announcement which as you must well know was made at no instance of mine, and in compliance with what appeared to be the feeling of the House, I countermanded the directions I had given It is extremely disagreeable to speak of myself; and I believe I have never done so except when some measure of injustice or aggression was in question nor indeed unless the personal injustice involved a public principle as I believe is the case here, unless it be intended to reduce all old salaries in which case, I shall cheerfully bear my part with all others".

In some MS notes of this period, headed "Payments for superior service", he cites the example of S.H. Leing, who had been paid no more than £500 at the Board of Trade for protecting the public against the railway companies, but in private practice had made £20,000 in two years.

"Commerce adheres to the rule that he who devises shall execute: and that he who contributes to the profitable results shall share in the profit, which is its own honour. Commerce animates its hands with a warm interest in enterprize and in execution. Government or public ministers

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The Treasury objected even to the Board's estimate for the price of a seal, and Chadwick was obliged to send Austin out to see what could be bought cheap and second-hand.⁽¹⁾ Such

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(Continued from previous page) in this country apparently understand the application of the Common motives only to one class of enterprise, that is to say to war, and there it is successful

A project is presented to the Government, involving extensive saving by more efficient applications of existing works, to the extent of several hundred thousand pounds per annum and of achieving an eventual national saving of lost labour, of the expenses of sickness and the expenses of funerals to the extent of no less than 14 millions per annum for England and Wales alone. Now how would Commerce receive such a project? As it has received and dealt with a project for the improvement of the trade in corn of not half the amount. How would commerce set about the execution of such a work? To him who had devised it, they would give the main direction, and would secure his services at any price. It would not stop till it had obtained a staff of officers of the highest aptitudes, whom it would pay well for their full time, and excite their zeal by participation in the results How has the Government set about its appointed work? Six years urging and re urging have taken place, during which time the condition of the whole population question was postponed to the condition of convicts, of juvenile delinquents, to questions of the Maynooth grant, and when proposed for execution, it is with a staff of unpaid officers who cannot give their whole time to it, who cannot have acquired, and, in all probability will not acquire the detailed knowledge necessary to successful direction, and only one paid Commissioner to whom it is proposed to give for this new and extraordinary work, a salary not more but positively less by one half than that ordinarily given to ordinary and comparatively routine commissioners, such as the commission for the commutation of tithes. This one Commissioner will be required to act in dislodging from the field of public service, commercial bodies who will oppose him with professional aid and officers each paid one half more, or double his salary

1. Chadwick turned the tables by conducting an inquiry into the cost of manufacturing seals. He found that the contract price for seals was £40; yet equally good seals had been obtained for the Sewers Commission for £5; and with a little thought he himself devised a ~~xxxx~~ method of making superior seals for £2. He received no thanks for his pains. "The subsequent conversations with the Treasury on minor subjects had been curt and disobliging and in a tone open to the inference that the inevitable explanations referred to had by no means promoted cordiality". (MS notes, "Administrative Relations of General Board with Treasury".)

cheese-paring would be merely comic if it did not reveal that the Government conceived of the scope of the new department as being no more than a subordinate function of a subordinate Minister. At Chadwick's suggestion, Morpeth urged that two medical observers should be sent to the Continent as in 1831 to watch the advance of the cholera and report on the steps which foreign Governments were taking to meet it. What was the use, replied Sir Charles Wood, when no one mode of treatment had been found to answer in all places.⁽¹⁾ It would take more than an impending epidemic to stampede the Chancellor of the Exchequer into incurring a bill for a medical wild goose chase over half Europe.⁽²⁾

In ministerial circles a new Board meant places to be distributed, friends to be obliged, and supporters to be placated. Chadwick, recruiting his staff, had never known the pressure of applications so heavy; but he had been given a free hand, and he dropped no crumbs for the hungry crowd of expectants who waited at the door of the Patronage Secretary. He warned Lord Morpeth, who had a kindly man's easiness and a Whig's sensibility to the claims of family and party: "If I were a member of your Lordship's household, it would be a duty to withstand your kind impressions in favour of applicants when I knew they were founded upon imperfect information. For myself I was early disposed to accept and act upon favourable representations of men, until the contrary was proved, and I have paid most bitterly for it. I have been convinced against my own will that a reverse rule is the sound one for ordinary cases; but in our peculiar work, I cannot but feel that it is a strong necessity. To take for granted, to presume that all will be well, that error may be easily rectified; that to use Lord Melbourne's expression, "things will shake right" and as we wish them is the most easy and pleasurable course: to scrutinize, to

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1. Morpeth - E.C., 18 September 1848.
2. One Medical Inspector (Grainger) was eventually sent to Hamburg for a few weeks.

cross-examine, and to refuse: to watch and remove or reprove for partial failures, is disagreeable to me; but not other people's money, but literally extensive life and death, others' pain and misery depend upon the performance of this duty".⁽¹⁾ So candidates who brought to Gwydyr House a chit from the Treasury or a powerful friend were told bluntly that he had an "entire distrust of testimonials from persons however eminent, who undertook to recommend persons for the performance of very special duties of which the parties recommending knew nothing".

(2) In selecting the Board's Superintendent Inspectors he looked for men who were not blinded by indurated professional habits, and who had the "proximate practical experience" to understand and to execute the novel combination of works which was the heart of his sanitary scheme. There was Robert Rawlinson, for example, the young Manchester engineer, who had startled the Liverpool Council by his brilliant plan for bringing water to the city from the Bala Lake in Wales, 72 miles away; William Ranger, a former lecturer at the College of Civil Engineering at Putney, who had drained the Pevensy and Worthing district of the Fens; George Thomas Clarke, later to make a name

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1. E.C. - Morpeth, 18 September 1848. He continues:

"We must strive to search out talent and not commit ourselves to insufficient hands. In this entirely new and untried work, I could scarcely say that we have any that must not be regarded as unsafe hands. They will all require watching and training, and we must prepare for failures....

It may be asked, 'are we to trust no one, not even men of the most eminent practical science'.

In such new and untrodden ground I believe the reply must be still in the negative. We must trust solely to ascertained facts

I work now at high pressure. I cannot well bear more strain. I shall however have to make good more or less any failures from defective appointments: have to give more instructions, and exercise more care. Every inept or useless person is an additional inconvenience".

Cf. also, E.C. - Morpeth, 4 September 1848: "You will I think in some instances have to guard yourself against being misled by what they call in the Navy "Eye service" --- service rendered only where it is seen".

2. E.C. - Morpeth, 14 September 1848.

as the master of the Dowlais ironworks, and as one of the first to assist Bessemer; Edward Cresy, the author of a standard "Encyclopaedia of Civil Engineering", and an expert on hydraulics as applied to house and main drainage; James Smith, "Smith of Deanston", the authority on agricultural drainage, an old ally from the Health of Towns Commission. As Secretary he had named another young engineer, Henry Austin, brother-in-law of Charles Dickens, who had earned Chadwick's special esteem by his plan for draining the low districts of towns by steam power, and who was fighting Chadwick's battles before the Metropolitan Sewers Commission.⁽¹⁾ The selection of such men as these did not make for easier relations with the Treasury subalterns, but it put under Chadwick's command a small corps of competent investigators, most of them young and flexible in outlook, all of them possessed of enthusiasm for the new principles of sanitary engineering and of practical capacity to carry them out on the spot.

By September 1848 Chadwick already had news of applications in agitation at York, Plymouth, Rotherham, Llanelly, and Barnstaple; while "a Candidate for employment is getting up a movement from Newcastle".⁽²⁾ In December he was able to report to Lord John Russell that "75 Towns or places have applied to have the Public Health Act put in force. In the smaller Towns the application has been by Petition from one tenth of the Ratepayers, in the larger Towns by petitions

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1. MS notes, "Names and descriptions of engineers to serve as superintendent inspectors", c. September 1848. In a letter to Morpeth, 14 September 1848, he describes his method of sizing up the candidates. "I have said to them, 'since you can give no evidence of completing some previous successful work, the next best evidence would be for you to take some ill conditioned place, badly drained and badly cleansed, and shew in what way you would recommend that it should be amended, and in what time and at what expense you would undertake that it might be done'. To some I have described particular cases, and asked them the treatment they would recommend, which has been commonly some exploded practice".
2. E.C. - Morpeth, 20 September 1848.

chiefly of the Town Councils. Amongst the applicants are York, Derby, Wolverhampton, Dover, Portsmouth, Gloucester, Worcester, Preston and Leicester This body of applications puts an end to the talk of universal resistance." "We are proceeding tentatively", he went on, "by a small staff of the best engineers who could be found with the special requirements for the service. We do not believe that six can with all aids, get through the work of 66 towns in any otherwise reasonable time, and for the sake of feeling our way, we incur the certainties of outcries at delays. Nevertheless but for the delay in constituting the Commission, we should I conceive have been ready with complete measures for several Towns at the opening of the Session". Concluding a rapid sketch of the Board's work to date, he remarks: "I am sanguine, that with due support, the general results achieved will be satisfactory to you, and that while the Continent is convulsed with questions of privilege and sentiment affecting the labouring classes, which will commonly make bad worse, we, by avoiding the metaphysical, and by pursuing a quiet but strong course of physical improvement (in which I would submit that it is most important that the Government, and the natural leaders should take and keep the lead) sure and striking results will be achieved".⁽¹⁾ Eschew political metaphysics; aim at the practical in social reform; put your trust in government --- no better illustration than this recipe for English statesmen could be given of Chadwick's position in that current of thought ^{which} ~~that~~ arises in Benthamism and flows into Fabianism.

For the next fifteen months, however, though the engineering inspectors pushed on steadily with their local inquiries, the main energies of the Board were directed towards the task of fighting, with limited powers and a tiny overworked staff, the epidemic which for the last year had been leisurely traversing the continent.

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1. E.C. - Lord John Russell, 5 December 1843.

"The accounts of the new cases of Cholera at Berlin begin to wear a serious aspect", Chadwick had written to Morpeth in the middle of August. "You must make up your mind to very short holidays".⁽¹⁾ On the 26th September Morpeth and Chadwick held their first meeting together as a Board, and recorded in the minutes their fear that the country was threatened by a dangerous epidemic.⁽²⁾

There was universal unwillingness to acknowledge the presence of the disease. The earliest cases were hushed up or recorded under a false name. By the end of September 1848, however, the cholera had begun its work in England; and, as the Metropolitan Sanitary Commission had predicted, it appeared by a kind of hereditary succession in those neglected districts where plagues and fevers were bred anew for each generation. The first case in Leith was in the same house as in 1832. In Bermondsey it was near the same ditch. In Pollockshaws cholera snatched its first victim from the same room and the very bed in which it had broken out sixteen years before.⁽³⁾ Amongst the earliest places attacked in London was Fore Street, Lambeth, where "the miserable inhabitants look more like ghouls and maniacs than human beings", where the doorways at high tide were blocked with boards and plaster to prevent the river getting in, and the surgeon made his way to his patients along planks laid over two feet of water.⁽⁴⁾

The two sailors from the Hamburg vessel at Horsleydown had undoubtedly died of Asiatic Cholera, Chadwick informed Delane on the 6th October. There had been two more undeniable cases in Lambeth, two in Sunderland, five in Edinburgh.⁽⁵⁾ The ripples of the epidemic were beginning to widen. Sitting in the midst of their cesspools and dungheaps, the local

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1. E.C. - Morpeth, 20 August 1848.
2. "Minutes", vol. 1, 26 September 1848.
3. "Report on the Epidemic Cholera of 1848 and 1849", p. 13. P.P. 1850 (1273), xxi. 3.
4. "Times", 28 October 1848.
5. E.C. - J.T. Delane, 6 October 1848.

authorities were fluttering in apprehension. The Sheerness Guardians were in a panic, reported the "Times". They had reason to be. "The offal of a population of eight thousand lies upon the surface of the streets and alleys in its most disgusting form. The only resemblance to a drain is a ditch which surrounds the town, full of black and stagnant matter, and forms the last receptacle for all the carrion that is too bulky and offensive to wither in the streets".⁽¹⁾

On the 2nd October an Order in Council gave the Board powers for six months under the Nuisances Removal Act, and three days later they published their first Notification in the "London Gazette". To understand the administrative measures that it prescribed it must be remembered that the Board had no conception that the causal agent of cholera was a self-propagating micro-organism, discharged in the evacuations of the sufferer, and borne to the next victim in contaminated water or on the feet of that filthy feeder, the house-fly. They were not even aware that cholera was a specific infection, as distinct in its nature from plague and typhus as the elephant from the giraffe and camel. The plague of Alexandria, in their view, was the typhus of Whitechapel; yellow fever was not sui generis, but was an ordinary fever differing only in its intensity; and the cholera also was no more than a virulent form of those familiar crowd diseases which killed thousands every year in the slums of the great towns.⁽²⁾ The doctrine that one differed essentially from another Southwood Smith wrote off as an eighteenth century error. It was now agreed, he maintained, that there was a general resemblance between these diseases. "They are all fevers; they are all dependent on certain atmospheric conditions; they all obey similar laws of diffusion; they all infest the same sort of localities; they all attack chiefly the same classes, and, for the most part,

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1. "Times", 24 October 1848.
2. "Report on the Epidemic Cholera of 1848 and 1849", passim. P.P. 1850 (1273), xxi. 3.

"Second Report on Quarantine", p. 4. P.P. 1852 (1473), xx.

persons of the like ages; and their intensity is increased or diminished by the same sanitary and social conditions".⁽¹⁾

Under the influence of the "epidemic atmosphere" it was possible for mild indigenous fever to develop into the most deadly of plagues; and, in support of this, Southwood Smith claimed that, six months before the cholera epidemic broke out in 1832, he had observed that cases of typhus in London were taking on characteristics approximating to cholera.⁽²⁾

The Board were convinced, therefore, that every case of diarrhoea --- which could not be distinguished by pathological signs from the epidemic itself⁽³⁾ --- was potentially a case of cholera. There is a consequent confusion, both in the methods of treatment they advised and in their accounts of the progress of the epidemic. The medicines prescribed in their Notifications were directed at the symptoms of diarrhoea, and the medical visitors were instructed to seek out all cases of looseness of the bowels. If any such cases did not pass into developed cholera, they were acclaimed as victories of medical science. Hence, since they found 60 cases of diarrhoea, the great majority of which were amenable to treatment, to every cholera death, the Board had a highly inflated opinion of the efficacy of their methods.
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1. "Report on Quarantine", p. 5. 1849 (1070), xxiv. 137.
2. "Report on the Epidemic Cholera of 1848 and 1849", p. 12. Cf. "Quarantine Report", 1849, p. 61: "confinement in a foul atmosphere can convert common fever into pestilence".
3. "Report on the Epidemic Cholera of 1848 and 1849", p. 91.
4. *ibid.*, pp. 110 - 111. In eight weeks the Board's visitors discovered and treated in London:

"Cases of premonitory diarrhoea	43, 737
Cases approaching to cholera	978
Cases of developed cholera	730
Cholera corpses, cases in which death took place without any medical attendance whatever	17
Cases which passed into cholera after treatment	52

From this return it appears that the cases of premonitory diarrhoea were to those of developed cholera nearly as 60 to 1; and that of these premonitory cases, even including the 978 which were on the verge of cholera, not 1 in 800 passed into the developed form of the disease".

Opposed to the Board's theory was that of a large minority of the medical profession who retained the traditional belief in specific contagion. But if it were true, declared the Board, that anyone who touched a patient might himself develop the disease or transmit its "contagium vivum" to the next person with whom he shook hands, then the general practitioner on his rounds would leave a trail of death behind him; and every member of the General Board of Health must have fallen victim to cholera or typhus, since from morning to night they were receiving visits from medical inspectors just returned from the worst localities. Indeed, it was difficult to see how the human race had managed to survive so long, if every epidemic disease could thus propagate itself in all directions. Rejecting such absurdities, the Board directed attention towards those physical factors in the environment with which they believed disease to be associated. In the Report published in August 1850, in which they described their activity during the epidemic, they gave a list of ten of these "localising" or "predisposing" causes: - overcrowding; filth; malaria from putrescent mud; dampness; want of drains and bad drains; graveyards; unwholesome water; food; fatigue; and purgatives.⁽¹⁾ The one "cause" on which the modern epidemiologist would fasten, unwholesome water, ranks seventh in the list, and is regarded, not as the vehicle for infection, but merely as a predisposing agent.

In the London of 1848 it was only too easy to point to some adjacent nastiness or offence to the nose to which a local outbreak could be attributed. "The epidemic was no respecter of classes, but was a great respecter of localities", wrote Dr. Sutherland, one of the Board's medical inspectors. "Rich and poor suffered alike or escaped alike, according as they lived in the observance or violation of the laws of their physical well-being".⁽²⁾ They were attacked when they lived near the

1. *ibid.*, pp. 37 - 67.

2. *ibid.*, p. 73.

Regent's Canal, which had not been cleaned out for twenty-five years, or near the two acres of refuse accumulated in a suburb of Hull; when they lived in the Potteries with their three thousand pigs and their fat-boiling plant, or in the Taunton girls' school, where 67 girls were crowded into one sleeping room, with an average of 68 cubic feet of breathing space each.

(1) On the other hand, there were remarkable instances where the avoidance of filth had preserved lives as by a kind of providence. Hector Gavin reported the case of a well supplying a dozen houses, which was surrounded by four cesspools within a radius of twelve yards. The water was as thick as soup with feculent matter, and the landlord's agent was obliged to spend an hour every morning in pumping until it ran fit for use. Of the 35 inhabitants of the houses, 22 did not use the well, and all escaped, while 46 of the remaining 63 were attacked by choleraic diarrhoea. (2)

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1. *ibid.*, pp. 49, 45 - 6, 43, 37 - 8.

2. Seventh Notification, "London Gazette", p. 2683.

The theoretical weakness and practical strength of the Board's epidemiology are well illustrated by the report of Dr. Gavin Milroy on the twenty deaths which occurred in Albion Terrace, Wandsworth Road, in the first two weeks of August 1849. Milroy attributed the outbreak to three causes: (1) an open sewer in Battersea Fields, 400 feet to the north of the Terrace, from which the inhabitants perceived a disagreeable odour when the wind was in certain directions; (2) smells from the sinks in the back kitchens, which grew noticeably worse after a storm two days before the first cases; (3) an accumulation of rubbish in the cellar of the house where the first case occurred.

Commenting on this explanation, Snow observes: "With respect to the open sewer, there are several streets and lines of houses as much exposed to any emanations there might be from it, as those in which the cholera prevailed; and yet they were quite free from the malady, as were also 19 houses situated between the sewer and Albion Terrace. As regards the bad smells from the sinks in the kitchen, their existence is of such every-day and almost universal prevalence, that they do not help to explain an irruption of cholera like that under consideration; indeed, offensive odours were created in thousands of houses in London by the same storm of rain on July 26th; and the two houses in which the offensive smell was greatest, viz. Nos. 3 and 9 --- those which were flooded with the contents of the drain ---

(Continued on next page)

Southwood Smith had been working for a month on detailed regulations for the guidance of local authorities. They would not do, reported Chadwick in disgust to Morpeth, as he picked up his own pen.⁽¹⁾ Morpeth and the Law Officers later softened the harsh imperatives of Chadwick's regulations, but, as events proved, they were still too emphatic for the tender ears of the believers in local self-government. Under the terms of the Act they were directed to the Guardians of the Poor, but, realising that the rapidity of the cholera's advance would not permit time to be wasted in waiting for the Guardians to hold their weekly meetings, Chadwick framed them avowedly with the object of concentrating power and responsibility in the hands of the Union medical officers. All places which the Union surgeons certified to be dangerous to health were to be cleansed at least once every twenty-four hours; ditches were to be cleansed under their superintendence, and solid and liquid filth of every description was to be removed from beneath and about houses. They were to inspect lodging-houses, and require the landlord to ventilate them; where a family inhabited a single room, they were empowered to order the removal of either the patient or as many as they deemed necessary of the other occupants. Dispensaries were to be established at convenient stations, to supply remedies and advice on bowel complaints; and also "Houses of Refuge", to which endangered families might be removed. Believing as they did, that while the "epidemic

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(Continued from previous page) were less severely visited with cholera than the rest; the inhabitants having only had diarrhoea, or mild attacks of cholera. The accumulation in the house No. 13 could not affect the houses at a distance from it". The only special and peculiar cause, he concludes, was the state of the water supplied to the Terrace, which was followed by cholera in almost every house to which the supply extended. ("On the mode of communication of cholera", 2nd. edition 1854, reprinted New York 1936, pp. 29 - 30).

Milroy's account of the genesis of the outbreak is thus obviously untenable; yet his recommendations --- efficient sewerage and house drainage and a superior water supply --- were admirably designed to prevent a repetition.

1. E.C. - Morpeth, 9 October 1843.

atmosphere" prevailed, any case of diarrhoea might develop into cholera, the Board instructed the Guardians to have the infected districts combed out daily by a small squad of qualified officers armed with the appropriate remedies for arresting the diarrhoea. For the same reason they advised that all foods which tended to irritate the bowels should be avoided, every variety of green vegetables, for example, and all kinds of fruit. The diet should be solid rather than fluid, and "those who have the means of choosing should live principally on animal food as affording the most concentrated and invigorating diet". In particular, the Board combated the notion, popular among seafarers, that spirits were a good protection.⁽¹⁾ The advice was sound enough, but many thousands of those who were in the greatest danger were in no position to pick and choose their daily dietary. The same criticism applies to the Board's maternal insistence on the importance of warm clothing, and their recommendation of ~~flannel~~ ~~flannel~~ next to the skin. It was indeed fortunate that it was impossible, as the Board well knew, to avert cholera by scorning cabbage, eating meat, and wearing flannel belts round the belly; otherwise the poor might have been left, with the economists' blessing, to their own individual efforts.

Outside Gwydyr House, with its confidence and calm certainty, schism and dissension split the ranks of the medical profession. Cholera bewildered the doctors. "Quot medici, tot sententiae", observed the "Times".⁽²⁾ Theories as to its cause poured in to the "Lancet" and the "Times", ranging from Budd's "Fungus Theory" and Snow's remarkable anticipations to hypotheses thin spun by vast ingenuity from a handful of

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1. Notification in respect to Nuisances Removal and Diseases Prevention Act, "London Gazette", 6 October 1848, pp. 3616 - 3620. Second Notification, *ibid.*, 31 October 1848, pp. 3875 - 3884. Special Notification to Captains of Merchant Ships, Steamers and Colliers, 1 December 1848, pp. 4386 - 4389.
2. "Times", 1 September 1848.

selected facts. Lea urged his "Geological Theory" that cholera miasm became toxic only when acted on by the calcareous and magnesium salts in water; while a Mr. Baggs lectured at the Polytechnic on "its dependence on the electric state of the atmosphere", stating that "this view of the subject is original!"

(1) One physician recommended a nostrum from an ancient Arabian manuscript; (2) another outlined how to treat a case on algebraic principles. (3) "In our profession", commented Dr. Sutherland drily, "every new occurrence, an epidemic, or a new remedy, or an extraordinary case of disease, is attended by violent literary symptoms". (4)

The College of Physicians said little, and criticised the Board of Health for saying too much. Chadwick had wanted his new department to be called "The General Board of Works and Health", or some such name, which would make it clear that its functions were chiefly in relation to those environmental factors which affected the public health. (5) But it emerged as a Board of Health, administering a Public Health Act, and presently its advice and arbitration were being sought in the solution of medical problems. The muttering of the medical corporations grew louder. A Board of Health, which occupied itself mainly with brick and mortar arrangements, and to which a medical member had been added as a kind of afterthought, was

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1. "Times", 25 August 1848. 2. *ibid.*, 14 September 1848.

3. *ibid.*

4. Dr. J. Sutherland - E.C., n.d.

5. Cf. "Mem. on reports as to the constitution of local Boards", MS, n.d.

"Query. The expediency of altering the style and title of the Board.

..... Strictly the main functions of the Board will be the superintendence and direction of those works which are specially conducive to the public health; and the former title seems to have been well chosen. The name "Board of Health" alone, will tend to the notion of a medical Board, and to functions more widely extended in that direction than it is ever likely to possess or exercise. It would be repugnant to the popular understanding to call local Boards which the general Board will have to superintend Boards of Health".

not worthy of the title.⁽¹⁾ A lay Board, composed of two noblemen and a lawyer, was prescribing treatment, civil engineers were discussing mortality rates, and a farmer, Smith of Deanston, who was no doubt an excellent judge of turnips, was inquiring into the sources of disease. Chadwick, with his oft-expressed desire to put doctors out of business, was singled out for attack, and when the Treasury cut the allowance of the Board's medical inspectors to two guineas a day, there was an outcry against Chadwick's "poor law Parsimony" and enmity to the profession".⁽²⁾ The cholera notifications led to open hostility between the Board and the two Royal Colleges. The "Lancet" sneered at the "extempore doctors" and the "zymotic gibberish of Dr. Southwood Smith"⁽³⁾, designed to prove the omnipotence of stenches to produce cholera, plague, or any other epidemic. The College of Physicians put out a counter notification, recommending an almost entire freedom in the use of vegetables

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1. The "Lancet" greeted with "deep regret" the announcement of the constitution of the Board of Health. (30 September 1848) It professed a high opinion of Chadwick as a lawyer: "but as the high priest of Hygeia, we confess we have no faith in him whatever For a lawyer to attempt the administration of the Health Bill is about as absurd as for a lawyer to attempt the editorship of a medical journal Mr. Chadwick, with the help of certain medical sanitary reformers, printed some very good sanitary reports, and making use of the facts furnished him by medical observers, he has taken a prominent lead in the agitation for sanitary reform. Very true; we admit these arguments, and such second-hand material may do very well for agitation, but it will hardly serve for good legislation. Direct, positive, and personal knowledge will be required in the counsel chamber of the Board of Health; such knowledge as can be obtained from no subordinate officials, whether they be, or be not, superintending inspectors or officers of health. It will not work well to have medical men of unknown or second-rate reputation as advisers at the Board of Health; if medicine appear there at all, either with credit to herself, or for the public advantage, her just rank must be acknowledged, and her representative must take equal place with the noblemen who are to preside and assist at the Board". (23 September 1848).
2. E.C. - Sir George Grey, 18 October 1848.
3. "Lancet", 7 July 1849 and 9 August 1849.

in contrast to the Board's "wild dietetic cordon", and there was a brisk exchange on the subject of the cabbage as a predisponent to cholera. Though Morpeth congratulated Chadwick on having "cabbaged" the physicians⁽¹⁾, the dispute did nothing to dissipate the view that the Board was dominated by an unprofessional meddler.⁽²⁾

It had been a mistake not to consult the medical corporations before issuing the cholera notification, a mistake which the Board tried to correct when an epidemic again threatened the country in 1853. Chadwick endeavoured to make his peace with the College of Physicians by a studiously courteous letter which he drafted for Morpeth's signature⁽³⁾, but he did not do so with a single mind. He was in no wise repentent. He had been criticised for intruding lay decisions into technical questions; but his private (and far from silent) opinion was that the physicians were now seeking to annex as a medical province a field of investigation which he himself had opened up, and that the "College of private practitioners in physic" was presuming to set itself up as the supreme authority on a subject about which the majority of its members were grossly ignorant until the appearance of his "Sanitary Report".⁽⁴⁾

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1. Morpeth - E.C., 17 October 1848.
2. "We were told that Edwin Chadwick would be a doctor in full bloom in less than ten days from the date of his appointment, but we hardly expected such a medical Crichton as we have found. It is a singular fact, in this, the early history of public medicine and sanitary measures, that whenever prescriptions are issued by the Board, they are sure to be countersigned by "Henry Austin", a civil engineer, we believe; while, owing to the left-handed manner in which a physician has suffered himself to be added to the Board, all the regulations for street-sweeping, emptying privies, and the removal of dirt and nuisances, are signed "Southwood Smith, M.D." --- no very flattering fact for our profession, and for this physician in particular". ("Lancet", 11 November 1848).
3. E.C. - Morpeth, 16 October 1848. The letter, dated 17 October, was published in the "Lancet" on 16 December 1848.
4. E.C. - Morpeth, 5 December 1848: "Sir Benjamin Brodie told me that until my report appeared, the whole profession were grossly ignorant of the subject some Members of the College ignorantly think they ought to be consulted upon".

"These bodies may be challenged as somewhat unreasonable in expecting to have in the whole or part, execution of that which they had no share in devising. The work of sanitary improvement was developed in a lay administrative department of the Government. It may be held up and ought to be cherished as evidence and an example of the possibility that large and most important popular improvement may originate in a Department of Government and from no agitation from without; that instead of waiting to receive instructions from without, a Government Department may give it".⁽¹⁾ He always doubted the "success of mere medicine"⁽²⁾, and tended to minimise the importance of the medical practitioner, whose training was to cure rather than to prevent. Medical men, he told Morpeth, "are much divided amongst themselves, and they distrust each other, and the schools that distrust medicine altogether are large and increasing".⁽³⁾ When Southwood Smith suggested the formation of a medical department of the Board of Health, Chadwick replied that "the immediate and the principal work would undoubtedly be the engineering work: the medical work would follow at a distance".⁽⁴⁾ Clearly he conceived that the engineer, bringing abundant pure water to the poor and flushing away their refuse cleanly and expeditiously, and the architect, designing for them dry and airy dwellings, would between them put out of employment a large proportion of the profession which lived on the ills of mankind.

Chadwick's scorn, it should be remembered, was directed at a profession which had yet to set its house in order by the Medical Act of 1858. It should be remembered further that his narrow conception of the part the medical man was to play in public health administration was rooted in the theory that disease was a product of a deleterious environment. But

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1. "Notes on the hostile attitude of the College of Physicians to the preventive work of the Board of Health", MS, n.d.
2. E.C. - Morpeth, 16 October 1848.
3. E.C. - Morpeth, 20 August 1848.
4. E.C. - Southwood Smith, 11 August 1848.

whatever the reasons --- and to those just noted, we should undoubtedly add Chadwick's own superb self-confidence --- his attitude crystallised into the principle that the professional medical expert should be subject to lay administrative control. For this he advances two main arguments. First, he asserts that "the preventive remedies are not found in the pharmacopia of any University. They are not those which can be administered by the Apothecary; but must for the most part be devised, perfected and applied by the Engineer, or the Architect, or the professors of mechanical science.

Prescriptions indeed in the shape of Acts, Administrative Orders, and regulations must be written out by the Legal Practitioner".

(1) Secondly, "it is of great importance to the public interest that the General Board of Health should be free to adopt at once whatsoever new views by whomsoever they are made out. The obstacles to the progress of medical science by fixed professional opinion is notorious. New views have their greatest enemies in medical practitioners. They ruined Harvey; they were the most powerful obstructions to Jenner. Except a practitioner have attained a towering position in fortune as well as reputation, he will if he consult his own interest propound any new views stealthily. The lay Board have no cause to be afraid of injuring their practice or professional position --- private practitioners have no professional jealousy towards them: and communicate more freely with them, than they usually will with one another. Unfortunately professional jealousy is more powerful than professional zeal: as they well know, and will commonly prefer non professional arbitrators It is a well known fact that in the church the brightest ornaments owe their elevation not to Episcopal but to lay patronage. Nelson would never have got forward with a Board of Old Admirals"

(2) The subordination of medical officers to the administrative civil servants, thus urged by Chadwick, was to prove a point of contention for more than half a century after

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1. "Notes on the hostile attitude of the College of Physicians to the preventive work of the Board of Health", MS, n.d.
2. *ibid.*

the fall of the General Board of Health; and it was not finally resolved until by a Minute of August 1919 the Chief Medical Officer of the Ministry of Health was given the pay and status of a Permanent Secretary without administrative functions, and was permitted direct access to the Minister in order to submit proposals and discuss matters falling within his responsibility.

Meanwhile, leaving Morpeth to soothe the outraged physicians, Chadwick was deploying his slender forces to meet the attack of the cholera. The appointment of two medical inspectors, Dr. John Sutherland and Dr. R.D. Grainger, had been sanctioned by the Treasury, and of these one, Sutherland, was ordered to Edinburgh to take the Scottish towns in hand immediately, with instructions to set Boards of Health in action at Gateshead and Sunderland as he passed through.⁽¹⁾ The police and the Poor Law Commission were warned. A circular to the Bishops suggested that the clergy take the lead in calling the attention of the parochial authorities to the need for preventive measures. Chadwick was engaged in preparing regulations for the medical inspection and purifying of suspected vessels (he had already been to the Board of Trade to "beat them up about shipping"⁽²⁾), when without warning Sir William Pym, the arch-contagionist at the Privy Council Office, clamped down a quarantine. "A new department is instituted", fumed Chadwick, "it is of great importance that it should be well ushered forth, as its influence will be moral rather than legal, yet before it is fairly constituted, one of the first public acts towards it, is one of direct disregard, and almost of public contempt, of one of its fundamental propositions".⁽³⁾ The quarantine was so much ink on paper --- as in 1831, when almost the only ships put under restraint by the cordon on the Wear had sailed from Dutch ports where no cholera cases had occurred. Even if it were not so casual in its administration, it was too late. The shipping interests appealed to the Board

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1. E.C. - Morpeth, 5 October 1848.
2. Morpeth - E.C., 10 October 1848.
3. E.C. - Lord ?, n.d.

to intervene, and the medical officer of the Customs called on Chadwick to confide his own private opinion of "the flagrant absurdity of the whole thing".⁽¹⁾ But no answer came from the Privy Council to the Board's remonstrance;⁽²⁾ though in the end, when it was clear that cholera was already at work in both England and Scotland, Pym agreed to lift his quarantine.

The Poor Law Unions, with their surgeons and fever wards, were better equipped to fight an epidemic than the vestry committees and volunteer bodies of sixteen years before. But Chadwick, who a month before the appearance of the cholera had complacently reassured Lord Lansdowne of the strength of this new machinery of his designing⁽³⁾, soon perceived that the legislature had committed a grave error in entrusting the execution of the Diseases Prevention Act to the Guardians. From their Board Rooms the Guardians viewed the needs of one class only, the destitute; they were now called upon to meet a collective emergency which threatened all classes, the rate-payer as much as the pauper, without any consideration for that important if indistinct line which marked off the respectable and self-supporting from the disreputable and dependent. They were designed as a breakwater to protect property against the rising flood of pauperism, and the master principle of their administration was "to do nothing except on application, and then only upon proof given of the urgency of the case".⁽⁴⁾ They were now asked to forget their rate-books, and to take the initiative in seeking out opportunities for the exercise of their new powers.

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1. E.C. - Morpeth, 17 October 1848.
2. Minute, undated, of October 1848. See also "Notes on the Privy Council administration on quarantine and other Laws", MS, n.d.
3. E.C. - Lord Lansdowne, 29 August 1848: "The new poor law Unions in England and Ireland: the Union houses with fever wards; the Union medical officers present the conveniences of a strong and improved local administrative machinery for meeting such calamities, which the public might be reminded they did not possess when the Cholera attacked the Country in 1831 and which they owe to the Whig Government".
4. "Report on the Epidemic Cholera of 1848 and 1849", p. 138.

Most of them stuck in their poor law rut. "They could not comprehend the duty of searching for objects of relief".⁽¹⁾ Preventive measures were treated as common medical relief, to be given only upon the order of the medical officer, issued after inquiry and adjudication. Where a portion of the workhouse was set apart as a "House of Refuge", the workhouse test was applied to those who sought admission. "The majority of the Guardians," Dr. Sutherland reported after a visit to the Sculcoates Union, "consists of country people who would meet as often as you like, discuss for ever, and agree to nothing".⁽²⁾ In the towns the Guardians were usually too fully occupied with their existing functions to find time to master new and extraordinary duties. When they did act, they did so on the narrowest view of the situation. Not until cholera had unmistakeably appeared in a district would they order whitewashing and cesspool cleansing, and strengthen the hands of their medical officers. The execution of the General Board's orders was generally postponed until the Guardians held their regular weekly meetings, the only motive for delay that the inspectors could discover being "the hope on the part of the Guardians that the epidemic would have passed before the orders were executed, and that therefore the expense might possibly be saved".⁽³⁾ When, for example, the Board ordered the Guardians of St. George the Martyr, Southwark, (where the mortality from cholera was higher than in any district except Lambeth) to appoint three extra medical assistants, consideration of the order was put off from one weekly meeting to another; twelve days elapsed; and then the Guardians resolved not to comply.⁽⁴⁾ It was in vain that the Board urged that expense could not be avoided in time of public calamity. "Money must be spent either in saving life or in the maintenance of pauperism, widowhood, and orphanage. In this case, economy is on the side of humanity, and the most expensive of all things

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1. Seventh Notification, "London Gazette", 18 September 1849, p. 2863.
2. J. Sutherland - E.C., 2 October 1848.
3. Seventh Notification, p. 2632.
4. *ibid.*

is to do nothing The parish of Lambeth, for example, was up to August the 27th, already burthened with 61 cholera widows and 226 cholera orphans, who must for years remain a costly burthen on the parish. From a small court in Bishopsgate-street, Peahen-court, the parish of St. Ethelburga had already received up to August 29th, one widow and twelve cholera orphans, whose maintenance, until they are able to provide for themselves, will cost the parish, according to the estimate of a competent authority, not less than £420; while a timely expenditure of £30 in putting the court in a proper sanitary condition would probably have prevented the occurrence of a single case of cholera. The funerals of persons who have died of cholera in the metropolis alone have already incurred an expenditure of not less than £50,000".⁽¹⁾ Closing their eyes to Chadwick's figures, however, the Guardians of the Poor continued to regard themselves as the Guardians of the rates.

As early as December 1847 Chadwick had suggested that temporary Boards or Committees of Health should be organised in the localities to prepare preventive measures against the cholera.⁽²⁾ Four months before the epidemic broke out he renewed his plea that the terms of the Nuisances Removal and Diseases Prevention Act would surely permit the General Board to set up special Boards as had been done in 1832 - 1833.⁽³⁾ The Law Officers refused, however, to sanction this "large remedial interpretation".⁽⁴⁾ The first and most obvious necessity was unity of action, cried Chadwick, and the first and most obvious defect of the law was that such unity of action was impossible. At Edinburgh there were five organisations doing the work of one, with all the resultant delay, expense, and loss of life. At Hull two Boards of Guardians, a Cleansing

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1. Seventh Notification, p. 2863.
2. ~~XXXXXXXXXXXXXXXXXXXX~~ Morpeth told Chadwick that "it is hardly opportune to organise an extensive temporary machinery, on the eve (let us hope) of submitting to Parliament a scheme of permanent legislation". (9 Jan. 1848).
3. "Memorandum as to provisions for the Cholera", MS, 24 May 1848.
4. Minutes, 1 August 1850.

Board and two bodies of Sewage Commissioners existed to do the work which could be efficiently carried out only by one representative Board, or perhaps better by a selected Board specially appointed for the purpose. At Bristol "part of the Borough is under Local Act --- part is in Clifton Union --- part in the Bedminster Union, and the whole is under a Mayor and Corporation". "Who are the authorities in such a case, who are responsible for carrying out your regulations?", the General Board was asked, "--- and to whom am I to apply and urge forward in the good work?".⁽¹⁾ In many places Town Councils and Improvement Commissioners pressed forward to take over duties from the paralysed hands of Guardians and parochial boards. Frequently, however, such bodies were unwilling to receive directions from the Poor Law officers. Where some arrangement for co-operation was reached, a divided power was created, and consequently a divided responsibility; and cholera sufferers died while their cases were being referred from one authority to another.

A further weakness was that the Board's regulations were issued to local bodies who were accustomed to look for orders to another department of the central Government. At Sunderland Dr. Sutherland's advice was passed over in the belief that he would not know so well as the Poor Law Inspector what might and should be done. Chadwick at once wrote a letter of protest to Viscount Ebrington, sharp but "not undeservedly so", Morpeth agreed.⁽²⁾ "In strict duty and in cases of emergency there ought to be no waiting for consultations of intermediate authorities who have and ought to have on such extraordinary occasions any intermediate discretion. People must not die that official forms may be gone through which are of no use".⁽³⁾

In Scotland there were neither Boards of Guardians nor a General Board of Health. Chadwick proposed that for the

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1. E. Gulson - E.G., 4 October 1848.
2. Morpeth - E.G., 13 October 1848.
3. E.G. - Viscount Ebrington, 13 October 1848.

duration of the epidemic the administration of health measures should be centralised in Edinburgh --- and promptly brought down upon his head a storm of local jealousies. "Glasgow positively refused: they would not be placed below Edinburgh --- not they! Aberdeen refused subjection to it in terms of violent abuse: if they communicated at all it should be direct with London".⁽¹⁾ A quaking deputation from Dumfries, where there had been 219 cases of cholera and 78 deaths, in the previous three weeks, waited on the Board in London to ask for the assistance of a medical inspector⁽²⁾; yet, returning home, they promptly fell to bickering with the medical men of the town over the fees to be paid for their extraordinary cholera services. Ashley was for sending a sharp letter and a peremptory demand that medical assistants should be appointed without too close a scrutiny of the bill. Chadwick decided on a more conciliatory course, and sent his best man, John Sutherland to talk some sense into the benighted parochialists. "My very spirit is crushed at the want of action of the people", he wrote to Chadwick after his first day in the town. "In all my experience I have met nothing like it. Fair to look at and full of promises but no talk can be more empty. Anything but doing. The regulations of the Board appear to be so much waste paper".⁽³⁾ He summoned a meeting of the parochial board "to insist on the immediate adoption of measures for extended house to house visitation. There is only a population of ten thousand, and it ought to be well done. I shall also insist on a large provision of medicines being placed in convenient situations, for the applicants by day and night. These are the great apparent means to be used: but in addition we must have a House of Refuge, which I am sorry to say has not yet been provided, although numerous instances have happened of more attacks than one in the same family".⁽⁴⁾ After a week of Sutherland's drive

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1. E.C. - Andrew Boardman, n.d.
2. Minutes, vol. 1, 5 December 1843.
3. Dr. J. Sutherland - E.C., 7 December 1843.
4. Dr. J. Sutherland - E.C., 6 December 1843.

and force of character, the parochial board, deflated but thankful, saw the cholera retreating from the town. "At the first effort everything looks well. Our cleansing is going on and our cholera cases are diminishing. The Committee of the Parochial Board will now do anything and I believe that both the General Board and I have their entire confidence and approval (with the exception of a recusant or two)".⁽¹⁾

For fifteen months the tale of local inadequacy and shortsightedness went on. The medical officer of Cumnock complained that the parochial board refused to pay his charges for attendance on cholera cases.⁽²⁾ The Kingston Union declined pointblank to appoint medical assistants or to publish notices of the provisions of the Public Health Act.⁽³⁾ The medical officer of Culross, who had urged the parochial board to take steps to carry out the Nuisances Removal Act and the regulations of the General Board, was dismissed for his pains.⁽⁴⁾

The Guardians of Redruth refused to reimburse their Treasurer for paying District Visitors during the outbreak.⁽⁵⁾ Summing up his experience in fighting cholera and ignorance in a score of towns in England and Scotland, Dr. Sutherland declared that the Sanitary Committee of Sheffield was "the only body in the country which had the enlightenment to perceive the full extent of their duty, and the courage and energy to perform it. This, I believe, was done without regard to expense, and in the firm conviction that apart altogether from the humanity of the course they had taken, the ratepayers would be large gainers in the ultimate saving of widowhood and orphanage which was, without doubt, effected".⁽⁶⁾ The Committee began preparations as soon as cholera was reported in the country; taking the Board's publications as their guide, they embarked on

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1. Dr. J. Sutherland - E.C., 14 December 1848.
2. Minutes, 23 January 1849.
3. *ibid.*, 3 February 1849.
4. *ibid.*, 12 January 1850.
5. *ibid.*, 25 February 1850.
6. "Report on the Epidemic Cholera of 1848 and 1849", p. 107.

a campaign of public cleansing, and consulted their medical officers about the preventive measures desirable. To this Sutherland attributes the fact that only 76 cases of cholera occurred in the town, though 5,319 cases of "premonitory diarrhoea" were discovered.

As the epidemic developed Chadwick became, as one friend described him, "the busiest and necessarily most inaccessible man in the empire".⁽¹⁾ Hardly a day passed without a meeting with Southwood Smith and Ashley at Gwydyr House. There were deputations to be cajoled and hectored, notifications to be drafted for the Official Circular, instructions to be telegraphed to Sutherland and Grainger, the Poor Law Board to be spurred to further exertions, the pretensions of Sir William Pym to be combated, another fat Report to be prepared to condemn root and branch that relic of pre-Chadwickian superstition, the Quarantine system. And when he had finished at Gwydyr House, he hurried round to the offices of the Metropolitan Sewers Commission in Greek Street, and there plunged into the great debate on the sewerage of London. On the 22nd November 1848 Austin, the Secretary, told the Board, in explanation of a gap of a month in the minutes, that the pressure of business in preparing instructions, issuing forms, and attending to personal applications, "which had been as numerous and more pressing than the written applications", had made it impracticable to keep the Board's records in order. In January 1849 Chadwick informed Lord John Russell that Austin was "overdone with work" and Bain was "knocked up"; one Inspector had the premonitory symptoms of cholera and another was down with fever; Lord Ashley was away to recruit; "and Lord Carlisle excepted, it may be said the Board of Health is very unwell".⁽²⁾

But the most severe test was yet to come. During the winter of 1848 - 1849 the most violent outbreaks had occurred

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1. J.H. Burton - E.C., 23 October 1848.
2. E.C. - Lord John Russell, January 1849.

in Scotland, England escaping comparatively lightly --- perhaps, as Snow ingeniously argued, because the English did not drink much unboiled water in cold weather, while the Scots used it freely at all seasons to mix with spirits.⁽¹⁾ As the weather grew warmer, however, the figures for cholera deaths in London began to mount. Between Westminster Bridge and Teddington Lock the river lay like a prolonged lake, into which poured each day the excrement of two million or more inhabitants; and with the ebb and flow of the tide, the stale water passed to and fro through London as the river regurgitated its filth. To protect the Londoner from this poisonous mass no defence was raised except the half-hearted filter systems adopted by some of the Water Companies. The situation was not improved when the Metropolitan Sewers Commission, acting on Chadwick's belief that filth in the river was less dangerous than filth in the sewers, recommended that the sewers be flushed regularly into the Thames, so driving the cholera evacuations into the river at a spot just opposite the intake of the main water supply. The low districts of the capital might have been constructed by design to serve as a culture medium for the fostering and nourishing of the germs of the epidemic.

The cholera broke over London in two waves. In the first six months, from the end of September 1848 to the end of March 1849, there was a progressive but irregular advance, with 988 deaths, the highest weekly mortality being 94 in the week ending 13th January 1849. Throughout April and May the epidemic was dormant, but no week passed without its deaths. In June it gathered strength, and the figures began to rise, reaching their highest point with 2,298 deaths in the week ending 8th September 1849.⁽²⁾

Early in the spring of 1848 the Whitechapel Guardians had warned the landlords of their district in letters and personal

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1. "On the Mode of Communication of Cholera", (1849), pp. 117-8
2. "Report on the Epidemic Cholera of 1848 and 1849", pp. 12

interviews of the precautions which should be taken to meet the advancing cholera. The landlords weighed the cost against their tenants' risk, and decided to let the tenants take their chance. In December cholera crept into a tiny dungeon of a cul de sac, called Hair-brain Court, which lodged 157 people in the 32 rooms of its thirteen houses. "In one house on the right side", reported the Union Medical Officer, "a grandmother and grand-child were laid out with the funeral paraphernalia of Roman Catholics, while a husband, wife, and two children lay side by side in the same room suffering from cholera. In the next house a woman was lying in the last stage of the disease, who died a few hours after There is a common privy at the end, and a channel runs down the middle of the court, under which is a drain, with branches right and left to the doors of the houses; but these, not communicating with any sinks, serve as receptacles for the filth which flows over from the privy, as appeared by one of these branches then laid open for the purpose of being cleaned out. Many of the children were dancing about on the heaps of filth taken out of it. There is no supply of water for any of the houses in this court, and the inhabitants have none but what they can "beg, borrow, and steal" from the neighbouring courts belonging to other landlords. It lies considerably lower than the level of the streets".⁽¹⁾ Seven years before the New River Company had driven a main through the court, but the landlords had ignored repeated pleas from the inhabitants to lay down house connections. "In another court, where the houses are in better condition and are supplied with water, were found --- a man lying dead in one house, a girl dead in the next, and a man dying in the cellar. This last poor creature was lying on a heap of chips and dirt in one corner, close to the foot of the steps leading down into it from the court, and his wife sat by his side or leaned over him. He had been taken, last night, from a wretched lodging house in Hairbrain-court to St. Thomas's Hospital. There he was refused

admission, and being unwilling to go to the workhouse could find no place but a cellar, without door or window. No persuasion could prevail upon his wife to suffer him to be removed. She said, while leaning over the body of her husband, "Give me some relief to-day and a coffin for him to-morrow".⁽¹⁾

A fortnight later John Liddle, the medical officer who made these revelations, wrote frankly to the "Times": "Under the present arrangement, it is almost impossible for a union medical officer, subject as he is to an annual election, faithfully to discharge his duties as an officer of health, in endeavouring to prevent disease by urging the adoption of sanitary measures, and at the same time maintain his independence. He must either be silent upon the subject of the physical sufferings of the poor, and allow the most disgusting and degrading state of things to continue, without raising his voice to ameliorate them, or he must resign his appointment."⁽²⁾ In making the Union surgeon the key to their administrative arrangements, the Board of Health had rightly turned to the one local officer with the necessary knowledge and skill, thereby earning for their decision the rare commendation of the "Lancet". But the Union surgeon took his orders from the men who paid his salary, and his usefulness was limited by the intelligence with which they directed his activities and the willingness with which they provided additional assistance during the period of emergency. Between the intentions of the Board and the will of the local authorities lay a chasm which was not bridged either by the slender powers which the Board exercised under the Nuisances Act or by the good sense and public spirit of the Guardians. In the worst districts the Union surgeon struggled to stem the mounting flood of cholera and diarrhoea cases, and was lucky if he could get his masters to appoint an assistant or two to dose the sufferers. After eighteen years of service the medical officer of Lambeth sent in his resignation in disgust, and then

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1. "Times", 16 December 1848.

2. *ibid.*, 29 December 1848.

sat down at two o'clock in the morning to write to the "Times": "During the week ending July 31, I and my two assistants, appointed under direction of the Board of Guardians, from an order received from the Board of Health, have attended 322 cases of illness among the poor of my district, requiring 1,028 attendances to be given at the houses of the poor, and at my own surgery; 59 of the cases were cases of Asiatic cholera in its different stages, and 141 were cases of diarrhoea and ordinary cholera: for this duty my salary amounts to 39/-, or £100 a year, which is not quite three halfpence for the medicines required by each case and my own services." (1)

House to house visitation, Houses of Refuge, home nursing, remained luxurious refinements, which, since the Guardians refused to vote the necessary money and assistance, were introduced into a few districts only. With few exceptions, the London Guardians neglected to make a list of the localities in their parishes which had been attacked by epidemic and endemic disease. On the very evening that cholera broke out in Whitechapel, the Guardians resolved that the Board's order "need not be acted on in this Union"⁽²⁾; and three days later, when their Clerk laid before them a list of the places where zymotic disease was then prevalent, they resolved further, "That the Clerk forward such particulars to the various local boards in the Union, but that the medical officers be not called upon to visit the places in question". When the Board ordered the St. Pancras Guardians to appoint four medical visitors, they were met by a flat refusal, the Chairman observing that house to house visitation "was calculated to do more harm than good, from the alarm it created".⁽³⁾ From Bethnal Green they received the following weekly returns of deaths: - August 11th 35, August 18th 125, August 25th 127. They promptly issued a special order directing the provision of suitable hospital accommodation

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1. "Times", 4 August 1849.
2. "Report on the Nuisances Removal and Diseases Prevention Act", p. 28. P.P. 1849 (1115), xxiv. 1.
3. "Times", 26 September 1849.

and a dispensary to be kept open day and night in each infected locality, and the immediate appointment of four medical visitors, one additional medical officer to aid in treating cholera cases in the infirmary, a sufficient number of nurses to take charge of the persons attacked, two inspectors of nuisances, and a staff of lime washers. Despite the emergency, the Board of Guardians appointed no medical visitor for five days; they provided no nurses; they established no hospital; they opened no dispensary; they appointed one inspector of nuisances instead of two; and they took no steps for extensive and effectual lime-washing.⁽¹⁾

Nothing showed up more grimly the crass negligence of the Poor Law authorities than the outbreak at the Tooting child farm. Here 1,395 children were housed in a building 700 would have filled. Cholera went through the close packed pauper children like fire across a dried prairie. 300 had been attacked, and 130 were dead, before the Guardians listened to the Board and withdrew their children from the plague spot. Eight days after the epidemic had broken out there were still no separation of the sick from the healthy, no sufficient medicine or medical attendance, no nurses, and scarcely enough assistance to remove the dead; while the survivors still tossed and gasped three or four in a bed, infection spreading from one to the other by the involuntary discharges of the cholera sufferers. Chadwick sent one of the medical Inspectors (Grainger) to investigate; and, as soon as it was reported to him that the cottages used as the boys' dormitories were built over a stagnant ditch which served as a sewer for the whole establishment, he despatched an expeditionary force of fifty navvies armed with pick-axes and scoops.⁽²⁾ Wakley, the Finsbury Radical and proprietor of the "Lancet", conducted an able and exhaustive inquest, which lasted three weeks, and laid

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1. "Report on the Epidemic Cholera of 1848 and 1849", pp. 111 - 112.
2. "Times", 8 January 1849.

bare a scandal which did almost as much as the green bones of Andover to discredit the Poor Law administration. A pathetic procession of child witnesses testified that they wore the same scanty clothing in summer and winter alike; that there was sometimes not enough bread to eat, and such meat as was provided went to those who were strong enough to fight for it; that the hungry climbed over the palings to pick broken victuals out of the hog-tub.⁽¹⁾ The medical inquirers found that many of the children were big-bellied with scrofula, and covered with the eruptions of scabies and the itch. The verdict declared that the victims were "suffering from the effects of insufficient diet, deficient warmth of clothing, and impure air". It was a verdict less against the cholera than against the Poor Law authorities, and in contrast the Board of Health, with its energetic and prompt action and its recommendation of a generous animal diet, came well out of the affair.

In the City of London itself, with its devoted garrison sworn to the defence of local self-government, the Board were fortunate to find one powerful ally. In January 1849 the recently elected Medical Officer of Health, John Simon, read his first report to the City Commission of Sewers, assuring them that their new Act gave them "as good an antidote for the spread of fever as vaccination is for the infection of smallpox".⁽²⁾ When the City of London Union refused to obey the Board's order to appoint nine additional officers, Simon persuaded the Health Committee of the Corporation to set up a board of inspectors to conduct house to house visitations. In their first round they discovered the bodies of six cholera victims who had died without any medical aid whatever. But opposition was strong on the Court of Common Council, and the "Times" believed that portions of Simon's reports were suppressed. The City should be proclaimed safe, declared Alderman Sidney, because all this talk about cholera had caused

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1. "Times", 20 January 1849.

2. *ibid.*, 24 January 1849.

thousands of families to flee in panic, and in consequence shopkeepers were "paying hundreds a year for their premises, and only earning 6d. per diem by their trade".⁽¹⁾ One member of the City Commission of Sewers objected to the "spicy, unctuous articles" in the "Times", while another was annoyed by the practice of "handing over a heap of complaints to the press".⁽²⁾

Lacking the co-operation of the metropolitan Guardians, the Board of Health, with two medical inspectors to cover the whole of England and Scotland, were helpless. Without the power to originate prosecutions for neglect or violation of their orders, the Board had no direct control over the Guardians and it was only through the indirect and uncertain result of a coroner's inquest, such as that conducted by Wakley at the Tooting institution, that they could bring pressure to bear on the Poor Law authorities. In vain the Board lectured the Guardians on their responsibilities under the Common Law, warning them that they were legally accountable for neglect involving injury to health and life. They debated the advisability of instituting proceedings against the more flagrant offenders. The powers of the Board of Health, argued Chadwick, were in fact a continuation of the authority of the Privy Council to take all necessary precautions in times of public danger. The authorities, from Blackstone to Professor Lang, were clear that the Poor Law Guardians as a corporation were not immune from punishment for infractions of the law.⁽³⁾ But Lord Carlisle advocated caution. "As to prosecution, I think we ought to bear this in mind", he told Chadwick, "Boards of Guardians are rather impalpable bodies, not paid, and I think there would be a risk, if they were proceeded against actually, that they would throw up their appointments. Their liability might remain, but would not great confusion be the consequence?"⁽⁴⁾

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1. "Times", 3 October 1849.
2. *ibid.*, 10 October 1849.
3. Minutes, 24 August 1849.
4. Carlisle - E.C., 25 August 1849.

Eventually, however, they determined to test their strength before the courts, taking a stand on their decision to close the worst of the overcrowded graveyards. The amended Nuisances Act of August 1849 empowered the Board to inquire into the state of the metropolitan burial grounds and to direct the managers to take such measures of precaution as were necessary for the public safety.⁽¹⁾ The Board at once sent the medical inspectors on their rounds, and by the second week of September burial had been interdicted in half a dozen of the worst grounds. The orders roused violent opposition.⁽²⁾ A tumultuous vestry meeting in St. Saviour's, Southwark, resolved that the closing of their churchyard would be a hardship to the poor, who would have to pay double the fees to be buried in a distant cemetery. "Why did they not commence at the right end, and before closing one place point out another in which these poor people could be buried?", asked the Chairman, while another speaker "deplored the meddling of a Whig Government, and indeed of any Government, in their local affairs".⁽³⁾ The Chairman of the Board of Guardians of St. George the Martyr, Southwark, declared "they might as well send an order that no more people should die in the parish as attempt to close these grounds. During the last two months the burials had greatly increased in number, and if these grounds were suddenly closed before any arrangements were made elsewhere, what would they do? All the poor people would then come to the parish to bury their friends, as they would be unable to bear the expense of removing them any distance from town."⁽⁴⁾ The vestries, in fact, were

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1. 12 & 13 Vict. c. 111, sec. ix.
 2. Conditions in the parochial grounds may be illustrated by the figures for burials in the churchyard of St. George the Martyr, Southwark, (one-third of an acre in area) in the previous twelve months ("Times", 21 September 1849): -
 1848: Sept. 12, Oct. 23, Nov. 28, Dec. 25.
 1849: Jan. 33, Feb. 22, Mar. 28, April 20,
 May 16, June 23, July 65, Aug. 141.
 3. "Times", 12 September 1849.
 4. *ibid.*, 21 September 1849.

moved less by commiseration for the poor than for the poor-rates, and by the fear that the wealthy parishioners would lose the fees they had paid for burial vaults in the parish church. themselves

The Board of Health stiffened ~~XXXXX~~ to meet the protests of outraged parochialists. "We must refuse at once to receive any Deputations, or Committees, or any form of Resistance to our Grave-yard Orders", Ashley told Chadwick. "We must not parley; the necessity of action is immediate, urgent, paramount to all law, right or interest. At once refuse to receive Deputations, and direct Law to act instantly. I will take any amount of responsibility".⁽¹⁾ A general Minute on Interments recorded the Board's intention "to act solely upon the Report of a qualified Inspector". "They cannot consent to subject the Public Health to the mischief that would arise from the delays of a renewed discussion. It is their duty not only to lay down general rules, but also to give summary decisions, which to accomplish their object must be delivered with promptitude".⁽²⁾ "I am amazingly pleased with our Resolution. I chuckle over its Stile", Ashley told Chadwick.⁽³⁾ Proceedings were taken

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1. Ashley - E.C., 12 September 1849.
2. Minutes, 13 September 1849. Chadwick wrote to Delane (15 September 1849) to explain the reasons for the resolution. "Had they heard the parochial deputations, the closings which have been effected in two days would have required several weeks or perhaps two months. On each case the question would have been opened and the whole of the evidence taken and exhibited in the report on the practise of interments put forward again. They would have brought forward chemists and medical men who would have declared that they did not believe that emanations from human remains were injurious. They would have brought forward a ruddy sexton as the Rev. Dr. Tyler did, in proof of the salubrity of their particular ground, the curate also would have been brought forward, to say that he had received no harm. In cross examination it might be got out, that the curate read the service not over the grave but at a respectable distance from it. I myself the other day observed a poor man's burial; the poor people standing at the edge of the grave, and the ruddy clergyman reading the service at such a distance that I am sure the mourners could not have heard one word of it, or only confused sounds".
3. Ashley - E.C., 14 September 1849.

immediately against the rebellious parish of St. Saviour's, but the magistrates upheld the churchwardens' contention that the Act did not empower the Board to close their burial ground. "Nevertheless we have acted rightly, boldly, wisely," Ashley maintained. "I never thought that our interpretation of the Law would stand before a Magistrate. But public opinion and feeling demanded such an act of Heroism on our part. We can and must urge very strongly the public overruling necessity of our course."⁽¹⁾

A second time the Board went to law, summoning the managers of the Whitefield Chapel burial ground before the Bow Street magistrate. The summons was again dismissed, the magistrate giving his opinion that the measures of precaution contemplated by the Act must be such as "burying deeper in the ground, abstaining from putting one coffin upon another, using lead coffins"; "at any rate, they could not be held to imply the destruction of the property altogether, which would be the effect of enforcing the order". The two counsel and the magistrate united in denouncing the new Act "as one of the most lamentable instances of legislative bungling that they had ever met with".⁽²⁾ In this way the local authorities wriggled through the wide meshes of an Act whose indefiniteness of phrasing had been intended to broaden the discretion of the Board. "This is intolerable", cried Ashley, after reading the magistrate's decision, "--- private property must not be turned to public injury".⁽³⁾

The Board were now driven to issue regulations prescribing the use of quicklime at each interment. It was the

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1. Ashley - B.C., 13 September 1849. "I cannot concur in not pressing for a decision. It is, I think, our duty to do so, that we may show to the Country, the feebleness of the Law, and the obstacles opposed to our progress. We shall otherwise be misunderstood and misrepresented. I feel very strongly on this; and I am convinced that it is necessary for our case before the House of Commons".
2. "Times", 28 September 1849.
3. Ashley - B.C., 1 October 1849.

only disinfectant available, and it had objectionable associations, Chadwick confided to an unusually sympathetic Delane. "At this time the population we know are peculiarly excitable the poor Irish especially. The belief has not gone out, that the doctors are poisoning the wells. At St. Andrews the other day there was a disposition to riot on this ground; that the doctors were poisoning them to diminish the population, and that the Government had sent down an Inspector with the beneficent object of preventing the victims being carelessly or wantonly chosen". The parish gravediggers and sextons, who felt that their livelihood was in jeopardy, ~~was~~^{were} not likely to restrain this feeling; but the Board, having only a handful of overburdened officers, were obliged to work through these ignorant and unwilling agents. (1)

"Our affairs are coming to a crisis", wrote Ashley in the second week of September, "The Magistrates against us, no Courts sitting, the Treasury backward It will be necessary to report to the Government that the Board has no power equal to the terrible Exigency of the times". (2) In the middle of a long vacation, the only effective authority left in London was fighting a pestilence with an ill-written Act and a scanty, inadequate staff. Under the burden of that heavy and anxious time, the secretary, the assistant secretary, and Southwood Smith fell ill in turn, and finally even Chadwick went down with suspected cholera. (3) For a week or two at the height of the epidemic Ashley continued the fight single-handed, wrestling in prayer with God and the Government. "Labour and anxiety at Board of Health very great", he noted in his diary on 7th September. "We are now in the City of the Plague, and still by God's love under his shield and buckler. He hears our prayers, and defends against the "Pestilence that walketh in darkness". Disorder increasing; close of last week showed a mortality

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1. E.C. - J.T. Delane, 15 September 1849.
2. Ashley- E.C., 13 September 1849.
3. E.C. - Col. Phipps, 1 February 1850.

trebling the average of London; 1,381 victims of this awful scourge! Yesterday showed for the metropolis alone, a return of 345 in one day⁽¹⁾ "London is emptied", he wrote two days later. "Cholera worse than ever; returns of yesterday quite appalling, and yet manifest that we do not receive more than two-thirds of the truth".⁽²⁾

The inactivity of the clergy dismayed Ashley. Whitewashing and opiates and strict temperance were well enough, but surely this was a time when the pious example of the Ninevites in proclaiming a fast and putting on sackcloth --- which had such excellent results --- might be profitably followed. In the Bishops' professional judgment, however, the emergency, grave as it was, did not call for measures of this drastic nature. A special prayer was read on the 16th September, and the clergy of London, with hardly an exception, gave a practical turn to their discourse on cholera, exhorting their congregations to assist in delivering their fellow-men from the bondage of dirt. It was "a poor substitute for a day of repentance and humiliation", grumbled Ashley⁽³⁾; but there was a gratifying decline in the mortality in the ensuing weeks. It was a curious survival of the ancient belief that epidemics were the direct action of deity, visiting the wicked with misfortune and disease. Sinful man could always think of some perfectly good reason why he should be so punished.

If ever a Government department was in need of prayer it was the Treasury in the grim weeks of that September when the cholera score in the capital was mounting daily by hundreds. Sir Charles Wood was a timid Chancellor of the Exchequer, whose dread of expenditure was almost pathological. The paralysis of

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1. E. Hodder, op. cit., vol. 2, p. 295.
2. *ibid.*, p. 296. "From many places we receive no returns. There is the greatest effort made to suppress all reports from watering-places or any places of trade or public resort" (Ashley - Sir George Grey, 1 September 1849, *ibid.*, p. 299).
3. *ibid.*, p. 300.

his inhibition spread downwards to the permanent officials who conducted Treasury diplomacy with the minor departments, and the wide vision of an England clean and healthy soon contracted in the tortuous channels of Treasury accountancy. At Somerset House Chadwick had already had experience of the obstructive tactics of the Treasury, but he was startled by the extent and nature of the obstacles which were now thrown in the path of the new department. This was the moment, when the staff was depleted and engrossed in the public emergency, that the Treasury chose to demand that the Board send in its accounts, adding that until they were made up the quarterly payment of their Parliamentary grant would be suspended. Chadwick and Southwood Smith were obliged to pool their salaries to pay office expenses,⁽¹⁾ while Ashley was furious that the reward for all their labour was "to be treated as Swindlers and Vagabonds".⁽²⁾

When an urgent appeal for a medical inspector was received from Newton, Montgomeryshire, the Board replied that they had so many demands for aid that they were obliged to take them in rotation according to the priority of application.⁽³⁾ Yet a fortnight later the Treasury refused to sanction the appointment of additional inspectors. The proposal should first be submitted to the Home Secretary, said Sir Charles Trevelyan. The Board replied firmly that "the statute under which the Board is constituted gives no jurisdiction over its proceedings to the Home Secretary".

"Should it happen that the Secretary of State for the Home Department was of opinion that certain measures recommended by the Board and coming within their province, were inexpedient; and, if the Board in deference to that opinion, were to refrain from executing those measures, and loss of life or other calamity were to ensue, the question would arise, --- would the opinion of the Home Secretary exonerate the Board from

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1. E.C., "Administrative. Relations of the General Board of Health with the Treasury. Minutes for a paper on", MS, n.d.
2. Ashley - E.C., 25 October 1849.
3. Minutes, 6 August 1849.

responsibility?

On the other hand if the Board were to adopt the views of the Home Office in opposition to their own opinion and injurious results followed, they do not consider that they would be exempted from the responsibility of such results.

In cases of emergency such as the Board have to deal with, it is necessary for the sake of promptitude that multiplied references should be avoided; in addition to which, division or confusion of responsibility is detrimental to the public service, and more especially, if references are made from a body specially informed, to one that has no special information whatsoever on the subject".⁽¹⁾

The Treasury reply was to sanction the appointment of one medical inspector and four assistants in London --- for a fortnight.⁽²⁾ On 7th September Bain had an interview with Hayter, the Secretary to the Treasury, in an attempt to secure approval for the employment of additional District Medical Superintendents in London; Hayter expressed doubts whether the Board had the power under the Nuisances Act to make such appointments, and declined to give any answer until he had consulted the Chancellor of the Exchequer. The deaths in London were then approaching 500 a day. Ashley, the only member of the Board of Health still on his feet, went over to the Treasury to request an immediate consent to the appointments, but he could find no one there. Returning to Gwydyr House, he recorded in the Minutes, "that as the smallest delay in making the necessary appointments in the present emergency must be productive of serious injury and loss of life, the appointments be now made, in the hope that the Treasury would see fit to sanction them".⁽³⁾ He notified the Treasury immediately by letter of his action, but no reply came --- till six months later, when the Board were reproved in strong terms

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1. Minutes, 23 August 1849.

2. *ibid.*, 24 August 1849.

3. *ibid.*, 7 September 1849.

for making appointments not only without the consent of the Treasury but without previously informing them. (1)

Thus, eleven months after the cholera had appeared in London, the Board of Health in exasperation threw off the reins of Treasury restraint, and on their own responsibility engaged the services of a sufficient number of medical men to comb out the stricken districts. At length, with a staff of eight superintendents, and such medical visitors acting under them as the Guardians could be induced to pay for, the system of visitation was brought into operation in the first week of September 1849, when the weekly deaths amounted to 2,026. In the first week the four visitors in Bethnal Green discovered 1,571 cases of diarrhoea and 69 of cholera --- every one of which had been without any medical assistance previous to the visitation. Altogether, in the eight weeks the system was in operation, the Board's officers discovered and treated over 45,000 cases of diarrhoea and cholera. (2)

With the diminution of cholera in London, the staff of medical assistants was reduced, and the daily agenda of the Board gradually lost its atmosphere of fearful urgency. It had been a sharper lesson than that of sixteen years before. In London in 1831 - 1832, out of a population of 1,631,641, 14,144 had been attacked and 6,729 had died; in 1848 - 1849, out of a population of 2,206,076, the attacks numbered 30,000 and the deaths 14,601. Over the whole country 1 in 250 had been attacked in the first epidemic, 1 in 151 in the second. In England and Wales in 1831 - 1832 the attacks had numbered 71,606, the deaths 16,437; in 1848 - 1849 the deaths alone from cholera and diarrhoea were 72,130, and Scotland contributed a further seven or eight thousand (3)

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1. H.C., "Administrative. Relations of the General Board of Health with the Treasury. Minutes for a paper on", MS, a.d.
2. See foot-note, p. 364.
3. "Report on the Epidemic Cholera of 1848 and 1849", pp. 11 - 12. The Report estimates the deaths from cholera alone in 1848 - 1849 at 60,000 for the whole of Great Britain.

The hand of man had done little to stay or divert the course of the epidemic. Hippocrates flattered himself that he had brought the plague of Athens under control by burning fires in the streets. There is the same confusion of 'post' and 'propter' in the General Board's appraisal of the methods they adopted against the cholera. Lime-washing, cesspool cleansing, all the Board's earnest exhortations to shun filth, did not deny access to a water-borne microbe. In the perspective of later knowledge, it is easy to see that the Board, instead of prosecuting reluctant churchwardens and Guardians before unhelpful magistrates, would have been better employed in circularising the public on the need to boil their water, and in ensuring that the companies filtered their supplies. Not until their seventh and last notification, published on 18th September 1849, did they suggest that water suspected of containing impurities should be boiled. In London they did probably more harm than good by their advocacy of regular flushing of the sewers into the Thames. Belief in the spontaneous generation of epidemics from dirt, and in the fundamental identity of the diseases so generated --- these twin medical heresies were propagated by the Board through the medium of its Reports and its energetic Inspectors, leaving an impression on professional practice which was still strong forty years later. John Simon refused to accept Koch's germ theory till 1890. Florence Nightingale thought that continued fever might develop into small-pox. Chadwick dismissed with scorn the possibility of the "existence of diseased germs, a mere hypothesis"⁽¹⁾; and a few months before his death he told a newspaper reporter, "I cannot tell you how strongly I believe in soap and water as a preventive of epidemics. If an epidemic were to occur, I would proclaim and enforce the active application of soap and water as a preventive."⁽²⁾ There are plenty of texts here for a sermon

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1. MS memorandum, n.d.
2. "Weekly Dispatch", 13 July 1890. Chadwick continued: "I do so believe in fresh air. My pet project, at which a correspondent in the paper laughed some time ago, is to build great towers in our cities, and pump down the ozone from above".

on the unwisdom of our ancestors in their generation; but in recognising the wrong-headedness of the public health reformers, we must not under-value the empirical sanitation which they championed. Unable to confront an enemy they could not see, whose existence indeed they did not suspect, Chadwick and his engineers were well occupied in cutting his lines of communication.

Within the limits of their power the General Board did what they could in 1848 - 1849, and they would have done much more if the Treasury had let them. In many of the dark places of the capital, in Hairbrain Court, and Slater's Court, and Rosemary Lane, jets of water from the parish fire engine, or from a hose attached to the nearest stand-pipe, played on walls and pavement, and purged away their scurf of filth. Grainger and Sutherland, the medical Inspectors, were enthusiastic over the results of the house to house visitation, which they considered had proved so effective a safeguard of the poor that "several lamentable instances occurred in which the wealthier classes perished while the poor were saved".⁽¹⁾ The Government undoubtedly gave the problem up, and its members retired to the country until the epidemic was spent. The Board stayed in London to fight; and at the least their activity did something to spread the belief that epidemics could be halted if energy and knowledge were applied to the task. It was the first general effort that had been made to investigate and put right, by the direct agency of medical men, the sanitary evils afflicting the working classes, and the people revealed a touching gratitude, not unmingled with astonishment, at receiving visits of succour from the bustling, efficient officers of the Board.

"The Board of Health may hope little, and perhaps desire little, for the applause of men", wrote Ashley in his diary, after reading an approving article in the "Observer", "but I do

1. "Report on the Epidemic Cholera of 1848 and 1849", p. 103.

much deplore that our anxieties and labours should be thrown away, and we be told that we have done nothing, attempted nothing, imagined nothing, wished nothing. Our diligence and zeal are mentioned in the article; yet it is less than justice. We have indeed toiled uncessingly, and not as mere officials, but with earnestness and feeling. Chadwick and Smith are men who may feel, but who show not fatigue or satiety in business, when necessity urges, or duty calls. As for the staff of the Board, miserably paid as they are, with scanty hopes of preferment, or even of continued employment, I am unable to speak with adequate praise. They have laboured even to sickness, and when struck down by the disease, have hastened back to their work, not for emolument (for they receive fixed salaries), but for conscience sake. And such are the men whose scanty recompense certain gentry would reduce by 10 per cent. Out upon this disgusting economy!"⁽¹⁾

The crisis had revealed sharply the weaknesses and anomalies of the Board's position. For all that their enemies protested, they were no Inquisition with supreme powers to reclaim the sanitary heathen. They did not possess the aggressive weapons needed to combat local privileges and property rights. It was unfortunate for the Board that the pestilence was in full retreat long before Parliament re-assembled. "We must, if we can, keep up the spirit of physical reform", Ashley told Chadwick. "The Cholera, thank God, has passed --- is not the wholesome fear passing also?"⁽²⁾ The transitory fears of the majority had been the force which drove the sanitary measures through Parliament; the steady and permanent interests of minorities now opposed their application and extension. In the days of security men forgot their tremors and the old errors which had brought disaster upon them, and few remembered the exertions of a hard-pressed Board save the grateful dwellers in the back streets, who were inarticulate, and the outraged parochialists, who were far too vocal.

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1. E. Hodder, op. cit., vol. 2, p. 296.

2. Ashley - E.C., 29 October 1849.

CHAPTER 11.GREEK STREET, 1848 - 1849.

Here in London, Chadwick felt, at the very doorstep of Gwydyr House, was the tough centre of the sanitary problem. If life in the towns of the industrial North was even more squalid, and health, as the mortality rates showed, suffered even more, it was in London that the evils which he had indicted were massed and concentrated on the largest scale in the physical discomfort of a population of two millions; and the greatest strength of the opposition, the alliance of property and particularism, of shareholders and vestry politicians, was here entrenched. Before the end of 1849 the General Board of Health had in hand two major measures, for regulating the interments and the water supply of the capital, the story of which will be told in later chapters. From his other base, at the office of the Metropolitan Commission of Sewers in Greek Street, Chadwick since 1847 had been attacking a further aspect of the metropolitan problem --- the main sewerage of London's 170 parishes and the domestic drainage of its 300,000 houses.

The first necessity was a general survey, without which the main arteries of London's drainage could not safely be laid down. No materials for such a survey were to be found in the offices of the old Sewers Commissions, and the surveyors' deep ignorance of the subterranean geography of their districts was perhaps the most damning indictment of their casual, piecemeal methods. As Chadwick had informed Sir James Graham in 1843, they had "only longitudinal sections and heights of their lines of sewers and if they deviate from them, they know not whether it be into a pit or upon a hill"; in fact, the Westminster Commission had granted a license for laying down a sewer "in a direction in which it was found when the builder came to examine

the spot, the water would have to run uphill".⁽¹⁾ When Chadwick's men, probing the cause of a violent outbreak of fever in Westminster School, opened up a great sewer running beneath the Abbey Precinct, the Clerk of the Works was astounded. "It is all a mystery", he murmured, "drains being things he never troubled himself with, so long as the water went off".⁽²⁾ It was less than five years before that Chadwick had been asked by Butler Williams, Professor of Geodesy at the Putney College of Civil Engineers, to describe what special requirements would be called for in a sanitary survey. The idea was as new as that; and it was with some misgivings that he now put the survey of London into the hands of the Board of Ordnance, which was then engaged on a survey of all towns with a population of 4,000 or more on a scale of five feet to the mile. The Ordnance, whose officers had been busy over a period of years in the work of self-reform, was a department of which Gregory Hardlines, the Civil Service Pharisee, might well approve, but its pace was too leisurely and its departmental habits too rigid for the task now demanded of it. Patiently Chadwick and Sir Henry de la Beche explained their views on sanitary cartography to Colonel Hall, the Superintendent of the Survey. All that was immediately wanted was the triangulation and the levelling, which need occupy six N.C.O.s no more than eight months. There was no need to delay drainage works while the Ordnance, intent on making a plan which would be "a credit to them", marked gardens and flower beds, trees and lamp posts --- and even the number of steps before every house door --- as they had in their recent map of Dublin. A block plan, at a cost of £37,000, of London and its suburbs for eight miles around St. Paul's would be quite sufficient.⁽³⁾

Chadwick had good reason for his delight, when the

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1. E.G. - Sir James Graham, 27 March 1843.
2. Metro. Sanitary Commission, Third Report, p. 14.
3. E.G. - Morpeth, 4 January 1848. Also "Report on Proposed Ordnance Survey of the Metropolis and Suburbs", by E.C. and Sir Henry de la Beche, 10 January 1848; "Orders of Court", vol. 1, pp. 24 - 26, 13 January 1848.

military surveyors hung up their "cat's cradle" on St. Paul's in January 1848, and people turned in astonishment to see common soldiers using theodolites in the street.⁽¹⁾ But in two months the work came to an abrupt halt. Why should the whole country bear the expense of a survey of London, the Commons were asking, a survey which was quite unnecessary in any case?⁽²⁾ Faced by a combination of provincial jealousy and metropolitan hostility, the Government declined to sanction any further advance from the Treasury. Lord Morpeth, who had assured the Sewers Commission of the Government's support, offered to resign from all his official positions⁽³⁾, but was talked out of it by Chadwick; and eventually it was agreed that the cost should be borne on the metropolitan sewers rates.⁽⁴⁾

Three months had been wasted by the political manoeuvring of the Whigs, and it now seemed likely that the survey, stripped though it was to bare essentials, must take at least another year.⁽⁵⁾ How was the Sewers Commission to occupy itself in the

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1. "The Ordnance men are on the ground, some of the Sergeants in uniform have been seen looking out at Steeples, and Sappers and Miners are in the Streets": E.C. - Morpeth, 20 January 1848.
2. Hansard, vol. 97, pp. 1014 - 17, 2 March 1848.
3. Morpeth - E.C., 28 March 1848.
4. "Orders of Court", vol. 1, pp. 49 - 51, 1 April 1848.
5. E.C. - Morpeth, 2 June 1848. In a speech to the Sewers Commission ("Times", 3 April 1848), Chadwick declared: "There are no public proceedings more discouraging to those who would labour for systematized and economical administration, whether local or general, than the whole proceedings in Parliament in relation to the general survey. It is a work which as the security for the identification of properties must be the foundation of fair valuations, equal assessments, and collections of local rates and taxes upon them" He revealed that he had urged the importance of a general survey for the more ~~equal~~ fair and equal assessment of the poor-rates, but his proposals had failed, with the result that both charge and collection continued to be oppressive. At the time of the tithe commutation, he had supported Captain Dawson in again urging the value of a general survey, but the idea had been rejected by the landed gentry in the Commons. He believed that if a survey had been carried out before the railways had been constructed, fifteen millions would have been saved.

meantime? In two ways, thought Chadwick: first, in experiment, for in sanitary works there were no authorities who could safely be followed; secondly, in creating house drainage where it did not exist, and in reorganising it where it did. The lines and outfall of the main drainage could not be settled until the survey was complete, but, after all, the combined area of the smaller conduits of the system of sewerage was greater than that of the trunks, as the area of the capillaries of the body was greater than that of the main arteries. The cesspools and the house-drains formed three-fourths of the evaporating surface, the sewers only one-fourth. If the Sewers Commission busied itself in abolishing cesspools and replacing them with water-closets, in taking up the badly levelled brick drains and laying down in their stead earthenware pipes, cleansed by adequate supplies of water, the mephitic exhalations which offended the noses and depressed the health of Londoners would largely disappear. In short, they should aim first at "the complete drainage and purification of the dwelling-house, next of the street, and lastly of the river".⁽¹⁾

What this meant in concrete terms of human comfort may be illustrated from the example of the cleansing of Church-lane and Carrier-street, a part of the former "Rookery" of St. Giles', where 2,850 people were crammed into 95 houses on a space of little more than an acre. Amongst the genteel correspondence of the "Times" there appeared one morning a crude, misspelt note:

"The Editur of the Times Paper.

Sur,

May we beg and beseach your proteckshion and power,
We are Sur, as it may be, livin in a Wilderniss, so far as the
rest of London knows anything of us, or as the rich and great
people care about. We live in muck and filthe. We aint got
no priviz, no dust bins, no drains, no water splies, and no

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1. "Times", 4 October 1849.

drain or suer in the whole place. The Suer Company, in Creek Street, Soho Square, all great, rich and powerfool men, take no notice watsomedever of our cumplaints. The Stenche of a Gully-hole is disgustin. We al of us suffur, and numbers are ill, and if the Colera comes Lord help us.

Some gentlemans comed yesterday, and we thought they was comishoners from the Suer Company, but they was complaining of the noosance and stenche our lanes and corts was to them in New Oxforde Street. They was much surprized to see the seller in Number 12, Carrier Street, in our lane, where a child was dyin from fever, and would not beleave that Sixty persons sleep in it every night. This here seller you couldnt swing a cat in, and the rent is five shilling a week; but theare are greate many sich deare sellars. Sur, we hope you will let us have our cumplaints put into your hinfluenshall paper, and make these landlords of our houses and these comishoners (the freinds we spose of the landlords) make our houses decent for Christians to live in.

Preaye Sir com and see us, for we are livin like piggs, and it aint faire we shoulde be so ill treted.

We are your respeckfull servents in Church Lane, Carrier Street, and the other corts.

Teusday, Juley 3, 1849".(1)

The "Times" did go and see them; and as its reporter, at the protective elbow of a police sergeant, made his way from one human warren to another, his note-book filled with grimly pathetic details. The landlord of one of the better houses "pointed in triumph to a clock and some crockery in one of the rooms". One woman told him "they seldom tasted meat --- hardly ever. They did not expect it. They were glad to get bread, and they had not often enough of that."(2)

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1. "Times", 5 July 1849. The letter bore 54 signatures.
2. ibid., 9 July 1849.

"The houses are underlet to a lessee for a term of years at about £20 per annum", reported the assistant surveyor who was sent to inspect the area. "These were again underlet, house by house, at £35 per annum; these were let in rooms at a highly remunerative rent; and, lastly, the separate beds in rooms are underlet to vagrants, tramps, and the refuse of society, at about 3d. per night, producing, after deducting rates, expenses, losses, etc., about £70 per house per annum". Yet in many of these houses, with their average of thirty or forty tenants each, the necessary conveniences had been abolished, "in consequence of an occasional charge upon the landlords for the relief of them"; and their inhabitants were obliged to beg their supply of water from shopkeepers in the neighbourhood.

The report of the assistant surveyor revealed that the emptying of cesspools in these lanes and courts involved an average outlay of £1/10/- per house per annum, that the water supply, miserably inadequate as it was, cost £1/10/- more, and that the scavengers' charge, occasioned by the want of dustbins, amounted to fully another pound --- in all £4 per house per annum. For an improvement rate of £1/15/-, he estimated that the streets might be paved, tanks erected to furnish a constant water supply in every room, privies and cesspools replaced by water-closets and drains, and a dustbin fixed in each yard and a common urinal in each court.⁽¹⁾

In this and in similar reports by assistant surveyors of the Sewers Commission, Chadwick worked out his interim plans for metropolitan drainage. A block of buildings, such as Goulston-street, Whitechapel, or Jennings' Buildings, Kensington, would be chosen, and would be examined by an officer of the Commission. He would then produce a report, indicating the measures needed, and proving that "the annual money-cost of loathsome squalor largely exceeds that of decent cleanliness".
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1. "Report on Church Lane and Carrier Street, St. Giles", by E. Gotto, 7 July 1849. "Orders of Court", vol. 2, p. 135,
2. "Times", 22 October 1849. 12 July 1849.

At the same time, to check jobbery, and to determine the details of domestic drainage, Chadwick set going a series of experiments and trial works. In his various reports he had condemned the work of engineers of the highest reputation, of Rendel and Wicksteed and even of the great Robert Stephenson. Gwilt, the author of the standard Encyclopaedia of Architecture, advised for a moderate sized country mansion a drain of an area of five square feet, with a capacity large enough to discharge 2,000 cubic feet of water a minute. In this sphere of disputed principles and contradictory practice, the public were at the mercy of the jobber, with his discounts and trade allowances. Chadwick once reproached a well known architect for putting in brick house-drains at half-a-crown a foot when for sixpence a foot he might have laid down superior earthenware pipes. "Oh, but you know, Mr. Chadwick", he was told, "we architects must live". (1)

"The most efficient if not the only mode of checking these pernicious influences appeared to be to analyse carefully the cost of production, ascertain what the articles might be produced for, and either actually manufacture the goods or to promote their production by contracts on a large scale, at such a rate of profit, as whilst ensuring the production would preclude the payments of the several stages of percentages or the allowances designated in France pour payer les influences". (2)

To the opposition on the Sewers Commission, when they questioned the value of his experiments, he declared that the disputed problems of drainage were "a matter of gauging and measurements, and as those were carefully and fairly proceeded with differences of opinion would disappear Great was gravitation --- it would not be diverted by passion or ignorance, and would prevail". (3) Earthenware pipes were brought from Switzerland and their prices and quality were

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1. E.C. - Morpeth, 14 October 1848.

2. "Sewage: Supply of pipes: reasons for trial works", MS, n.d.

3. "Times", 24 July 1849.

compared with home products. The production cost of bricks was analysed and the prices charged by contractors shown to be 60 per cent. higher; whilst a subterranean survey revealed that the ruinous state of so much of the sewers was caused by the fact that the bricks supplied had been far inferior to the qualities contracted for at that very high rate of profit. The flow in the sewers was gauged, and it was demonstrated to the astonishment of the old officers that house drains need not be larger than four inches in diameter, a pipe that size being sufficient to carry off the sewage from a thousand people or more. Tests were made to determine the quantity of water actually consumed in the metropolis, and the quantity which would be required for the new system of drainage. Trial surveys were made of suburban districts such as Richmond and Sydenham, and plans and estimates drawn up to show the practical advantages of the combination of water supply and drainage. Barges took out sewer water to enterprising farmers, and encouraging reports came in of double crops of grass and wheat.

He pushed on quietly at the same time with preparations to dispossess the Water Companies. Explorers were sent out to test the quality of the surface and drainage water at Epping, Windsor and Richmond. The specimens so far examined, he told Lord Morpeth in June 1848, showed only six degrees of hardness, as compared with the twelve or fourteen degrees of Thames water; this would mean a saving in soap of £200,000 a year --- and he calculated that for about £180,000 they could drain a hundred square miles of land to give a completely new supply of up to a hundred gallons a day to each of the 300,000 houses of the capital.⁽¹⁾ If confirmed, these results spelled the doom of the Companies, with their restricted supplies of dirty water. It was not surprising that he warned Morpeth that "our course of research should if practicable be kept quiet from the Water Companies".⁽²⁾ What he feared most of all was that the

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1. E.C. - Morpeth, 14 June 1848.
2. E.C. - Morpeth, 31 July 1848.

Companies, getting wind of his activities, would press for a Government pronouncement on "pre-appointed terms of compensation" which would reflect their own inflated ideas of the value of their works. "Such pre appointed terms of purchase neither could, nor ought to be carried out", he told Morpeth. "If they were, you would have purchased peace for the present, with the certainty of enduring unpopularity and hostility hereafter. The more we proceed with the investigation in the Metropolis, the clearer it is, that the pipes of some of these companies, for which they claim compensation, will not be worth taking out of the ground, and that their supplies ought not to be endured for a day. Compensation for some of them will hereafter appear to the people, like compensation for the capital invested in the old sewers (which are extended cesspools) had they been laid down by trading companies. On principle I am for liberal compensation, but I see no chance of the water companies own terms being endured". (1)

It was valuable work; it was necessary work; and in the interval until the completion of the general survey the officers of the Commission could hardly have been better employed than in conducting experiments and putting London's domestic drainage in order by blocks and districts. But the policy lacked that appeal to the interest and imagination of the ratepayers which a grand engineering feat like the main drainage of London would have provided. It was dullness unrelieved. Chadwick was a bad publicity agent both for himself and for the works of the Sewers Commission. In his speeches at Greek Street the generous design of a capital freed from the burden

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1. E.C. - Morpeth, 30 May 1843. Morpeth replied (12 June 1843) "I do not understand you as intending to incorporate these precise observations in your Report, because I think it would be more judicious for you to indicate what ought to be done, and what can be done, without telling the existing companies that their claims to compensation will turn out to be worth nothing at all, or we shall have their hostility with a vengeance".

of dirt and disease was obscured by chatter of dustbins and siphon traps and the flow of water through a sewer. The "Times", which had smiled upon the Commission in its early months, fumed to see it dribbling away its own time and the public money in measuring house drains and offering prizes to plumbers for patent commodes.⁽¹⁾ The "Times", and the public, had lost patience.

From the beginning Chadwick was convinced that the survey and the experimental works could not be supervised by an unwieldy body of 23 Commissioners, one section of whom never attended the monthly meetings at the rooms in Greek Street, while another section sat in permanent implacable opposition. In January 1849 he used his command over the majority of the active Commissioners to secure the appointment of a number of committees, for Finance and Bye-Laws, and, most important of all, a Works Committee, from which there branched sub-committees for the Ordnance Survey, the Trial Works, the Disposal of Refuse, and the Construction of Roads.⁽²⁾ One object of this step was to carry on business in the intervals between the meetings of the full Commission; but it was Chadwick's aim also to ensure that scientific questions should be discussed in an atmosphere free from the friction, the delay, and the untidiness of dissension. He sought to "put a stop to the thirst for debates"⁽³⁾ by withdrawing with companions of his own choice behind the doors of a committee room, where the merits of gulley traps and hollow bricks could be given the same calm

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1. "Times", 2 July 1849. "M.C.S. Minutes of the General Purposes Committee", vol. 4, pp. 48 - 49, 28 February 1849.
2. "Orders of Court", vol. 2, p. 8, 16 January 1849. The Committees were composed as follows:
 - (1) General Committee, open to all members;
 - (2) Finance (7 members);
 - (3) Bye-Laws (6 members);
 - (4) Works (13 members), with sub-committees for Ordnance Survey (4), Trial Works (3), Disposal of Refuse (3), Construction of Roads (2).
3. "Times", 3 August 1849.

deliberation as questions of surgery or physics. When he emerged from the committee room, however, he found himself in the less equable climate of an open assembly, where unfriendly Commissioners could attack him in ill-informed speeches half an hour in length, and where even friendly Commissioners in their ignorance could cause annoying delay. At his ease when making an exposition of principles to a sympathetic audience, Chadwick's temperature rose when he encountered the obstinate pressure of a hostile mind. The anti-Chadwick party never numbered more than half a dozen, and its solid indissoluble nucleus was the little group of old Commissioners, Byng, Leslie, Jones, Bidwell. Chadwick left them in no doubt that he resented their presence. In their leader, John Leslie, a former member of the Westminster Commission, he discovered a man whose jaw was as firm as his own, and whose determination to expose error and point out true courses was just as great --- with this difference: that Leslie was as set in the old ways as Chadwick in the new. Chadwick saw in Leslie the incarnation of that parochialism against which he had always contended, with its pig-headedness, its petty horizons, and its clinging to exploded practices.

There seemed no end to Leslie's perversity and obstructiveness. When he was told that a number of the old Commissioners were to be transferred to the new body, Chadwick had sent them copies of the reports of the Metropolitan Sanitary Commission, and had received from them hearty expressionsoof assent to the principles he had laid down.⁽¹⁾ Yet, hardly a week after the writs of supersedeas had been issued in November 1847, the old Commissioners, led by Leslie, were voicing views in plain contradiction of the new methods and in support of the practices which were to be abandoned.⁽²⁾ "Presuming that they were not dishonest", Chadwick commented, "it follows that they did not understand the measures; and

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1. "Memoranda in respect to the proceedings in the Sewers Commission", MS, n.d.
2. E.C. - Morpeth, 30 December 1847.

having previously been engaged in a party antagonism, what they really were impressed with was, that their adversaries were to be superseded, and themselves put in a position of greater power".⁽¹⁾ At the very first meeting Leslie revealed how little he had grasped of the proposal to consolidate the works, when he contended that the two surveyors, Phillips and Roe, should be placed on an equal station in separate districts. A week or two later, he stood alone, in defiance of the lawyers on the Commission, in questioning the legality of a general survey; and when, with much expense and delay, the opinion of the Law Officers was obtained, he treated it with "equally ignorant and insolent contempt".⁽²⁾ In meddling with house drainage, declared Leslie, the Commission was stepping beyond its proper function. It should content itself with a simple declaration that cesspools ought to be abolished, leaving it to the parties themselves to find out how to do it; sewers should be driven up the streets, and the occupiers left to break through the fronts of their houses and form the junction as best they could. On the mysterious doings of the Trial Works sub-committee Leslie directed an angrily inquisitive gaze. Fourteen thousand warrants of distress for the non-payment of rates had already been issued, and the Commission should be more careful with the ratepayers' money than to spend it on guaging the run of the sewers and other profitless inquiries.

But the innovation which Leslie most detested was Chadwick's committee system. He saw no reason why the old method should be changed of dealing with a miscellaneous assortment of business in open Court, where all questions affecting the sewers administration could be discussed under the critical gaze of the ratepaying public. Had this been the only point at issue in the dispute over the committee system,

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1. "Memoranda in respect to the proceedings in the Sewers Commission", MS, n.d.
2. E.C. - Hon. Frederick Byng, 11 September 1848. "M.C.S. Minutes of the General Purposes Committee", vol. 2, p. 55, 23 May 1848.

Chadwick's case would have been incontrovertible. In so intricate a task as the administration of London's sewers, --- involving such diverse technical matters as the assessment and collection of rates, the supervision of a large clerical and engineering establishment, the preparation of surveys and estimates for local improvements, the trial of new materials and new devices, a subdivision into specialised committees was the only way to come to close grips with the details on which policy must be framed. It was in the committees, with their fingers on the pulse of business, that policy must be initiated; the open Court, though it might influence its committees by criticism or encouragement, must in the main be content to ratify their decisions.⁽¹⁾ But this was not all. No idea of composing the committees on representative lines seems to have entered Chadwick's head. From the all-important Works Committee, with its off-shoots ~~making~~ controlling the survey and the experiments in drainage, irrigation, and road construction, the old Commissioners without exception were shut out.⁽²⁾ He did not listen when Lord Carlisle, sensing the

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1. See MS fragment (apparently draft resolutions) in which Chadwick defends the committee system:

"That the greatest security against waste by any board composed of numerous members is the thorough examination of the business brought before it.

That the only practicable mode of effecting this in such bodies is by a subdivision of labour and delegation.

That responsibility is increased by the fewer hands into which the business is divided;

That executive dispatch is increased by the fewer competent hands into which business is confided.

That the greatest waste delay and mismanagement has arisen amongst numerous and fluctuating bodies of persons.

That the presence of every Commissioner, at every Committee and sub Committee is inconsistent with the principle of the proper examination of business by means of division of labour"

2. See Protest signed by Byng, Leslie, Lawes, Bidwell, and Jones ("Orders of Court", vol. 2, pp. 33 - 35, 22 March 1849: "..... out of the seven Committees constituted or confirmed by these orders namely --- the Ordnance Survey Committee; the Trial Works Committee; the Construction of Roads Committee; and the Sewage Manure Committee exclusively
(Continued on next page)

danger of an excluded, embittered minority, suggested that it might be prudent to utilize and occupy Leslie by putting him on a committee with three or four others of superior knowledge to report on the pollution of the Thames.⁽¹⁾ What could Leslie contribute to a scientific investigation beyond an ignorant obstructiveness? You might as well expect a vestry politician to design and construct a locomotive as to plan a complex and scientific system of drainage.

It was hardly to be wondered at, therefore, that the decisions of the committees came in for a hotly jealous scrutiny when they were brought before the whole body of Commissioners in Court or General Committee. John Bullar, one of the lawyers on the Commission, whose good humour frequently cushioned the shock of the contending factions, urged that it would tend much more to the harmonious working of the Commission if both parties were represented on the committees, so that "their differences of opinion should be called out and reconciled at the outset of any proceeding rather than mooted for the first time in the General Committee". "If", he went on, "there is to be a repetition in the General Committee of the investigations which have been made in the Committee of Works, the members of that Committee will very soon save themselves the loss of time of attending its meetings, or leave its duties to

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(Continued from previous page) consist (with one single exception) of twelve of the Commissioners nominated upon the Works Committee"

Earlier, before the General Committee ("M.C.S. Minutes of the General Purposes Committee", vol. 4, pp. 38 - 40, 22 February 1849), Leslie had argued that it was illegal to afford facilities for the performance of the ordinary business of the Commission by committees. The authority to delegate was not to be found in the Sewers Acts; indeed, every facility was given by the Act of 1848 to the Commission as a Court of Record to carry out its objects most advantageously "by making the public fully acquainted with all its proceedings". A case was prepared for the Law Officers (ibid., pp. 59 - 60, 1 March 1849), as a result of which some slight adjustment was made in the arrangements. ("Orders of Court", vol. 2, pp. 29 - 31, 15 March 1849).

1. Carlisle - E.C., 16 April 1849.

be performed by a small minority."⁽¹⁾ Chadwick proposed instead to meet the truculence of the opposition with the equally truculent resolution: "That if the Court did not support the committee it had appointed, consisting of gentlemen whose intention it was to do their duty, it was impossible for the business of the Commission to go on".⁽²⁾

Inevitably the others fell under his domination. It was a benevolent despotism, working through the machinery of half a dozen committees, whose head and heart were Chadwick. As the "Times" objected, if the committees were nominated by Chadwick, and the Court was bound to support the committees, it was only too clear that the Commission represented and registered the opinions of one man alone.⁽³⁾ The committee system, in the eyes of its enemies, was a screen for the dictatorship of one ambitious mind. "Any commissioner who did not belong to the Works Committee was perfectly useless", cried one. "Mr. Chadwick asked him why he did not attend; and he answered that the Works Committee governed the commission. All the rest were mere cyphers, and were treated with a degree of intemperance if, as commissioners, they came to the court to discharge their duty and do what they considered right. They were considered excessively impertinent if they asked a question, or alluded to any explanation that might do good to the commission".⁽⁴⁾

The gulf between Chadwick and Leslie could not be bridged. The unhappy Carlisle found himself in the desperate dilemma of a man with one foot on each side of an ever widening crevasse. Chadwick's last word was that there must be no "self indulgence in kindly feeling at the expense of the public and of

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1. John Bullar - Lord Carlisle, 2 February 1849.

2. MS fragment, n.d.

3. "Times", 1 October 1849. "The Commission has been made a Parliament to register Mr. Chadwick's acts; the subcommittees conduct his experiments, adopt his projects, and reflect his opinions; and general Courts are but so many packed tribunals for silencing any contumacious opposition".

4. Hon. Frederick Byng; speech reported in "Times", 3 August 1849.

duty: that is to say by jobbery in urbanity. It is laid down by an eminent member of the Government that the essence of statesmanship is compromise. Be this as it may with matters of Government, it is totally misapplied in respect to sewers administration. Between good and bad sewers there can be no compromise."⁽¹⁾ Carlisle was sympathetic when Chadwick, reporting another "dreadfully annoying day at Greek Street", cried that "the present state of things cannot, ought not to go on".⁽²⁾ But not infrequently Chadwick, with his continual alarms, his protests and his fretting, strained the patience of the peace-loving nobleman. He could not endure bad blood and squabbles between the members of the Commission, he warned Chadwick, and "if they go on I shall run away from both Boards".⁽³⁾

When the time came in September 1848 for the re-appointment of the consolidated Commission under the terms of the recently approved Sewers Act, Chadwick moved ponderously to shake off his Old Man of the Sea. It had been agreed that the original 23 Commissioners should continue in office unless they signified their own desire to be relieved, and when he found that Chadwick was trying to edge Leslie out of the Commission Carlisle sent him a stiff note. "Now I am entirely convinced of the thoroughly public-motived spirit of all you do, and I can quite understand how particular people may thwart, annoy, offend, obstruct; but where is the work we can expect to do without a mixture of these elements? I sometimes think that people who have not been in Parliament are more intolerant of this species of opposition and obstruction than we who are more seasoned to it. We have enough of opposition and jealousy to deal with from without, to make it very unseasonable to excite and create them in fresh quarters So pray let there not be any more bad blood raised about it".⁽⁴⁾ Earlier a sensible,

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1. MS fragment, n.d.
2. E.C. - Carlisle, 2 July 1849.
3. Carlisle - E.C., 26 January 1849.
4. Carlisle - E.C., 18 October 1848.

good-humoured letter from John Bullar had urged the same point. There must be some opposition, and none was likely to be less effective than Leslie's. "You intimated that you would retire from the Commission to avoid Mr. Leslie. That would be to abandon projects in the success of which you take great interest, and to allow the apprehension of a little occasional annoyance to be your master. If you had not had force of determination enough to master circumstances of annoying character, you ought to have been quietly buried in a cesspool some years ago, with a train of Assistant Commissioners following your funeral, and the pall borne by broken-hearted flushers!"⁽¹⁾

If the cantankerous Leslie was the most irritating, he was not the most serious obstacle to the inauguration of the new order. By June 1848 Chadwick was sighing that the establishment at Greek Street was not well in hand. The clerks and surveyors who had been inherited from the extinguished district Commissions were sensitive about their rights of precedence, and worked together with a bad grace; and they were appalled when Chadwick introduced a regular working day of six hours from ten to four, in place of the carefree sloth of the

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1. Byng, the most approachable member of the opposition group, admitted that Leslie's manner was very bad. But, he went on on, "Does not this occasional difference of opinion lead the Publick to suppose that matters are discussed and that we are not a packed Jury under such an able Foreman as yourself? It will be very difficult to persuade the Metropolitan Rate Payers to be highly taxed by any but a representative Commission. If they are passive it will be owing to their fancied security in certain names and therefore should I be glad to see them repeated tho' they have not given hitherto any assistance. Leslie's is an influential one as a security to the great body of St. George's. Even I, am the means of keeping St. James' quiet. I may be permitted to remark that your manner has all the appearance (I speak of committees) of impatience and anger at the smallest opposition from him --- and as no doubt he is quick of sight, he may have observed what has struck me, a certain aristocratical bearing among his Colleagues to the Tailor. That I should not wonder with his very independent spirit has raised rather than diminished his spirit of contradiction" (14 September 1848)

old régime. (1) Urgently needed was an engineer of commanding personality and advanced views to be put in charge of the works. On a proposal of John Leslie's the Commission had committed a cardinal error in dividing the metropolitan area into two districts, each under an engineer of equal status, with the result that the two engineers, Roe and Phillips, pushed on with their separate programmes without consulting each other, just as if no consolidation had taken place. "I believe them both to be good well disposed men; both capable of good work, if not put out of their proper positions and if properly directed", wrote Chadwick. "But it is a new system which is required to be carried out; a system very different from their own recent practises, which they must be led to alter. To say that they shall not be interfered with where necessary, is to say that there shall be no relief, and that the health and lives of the population shall be subordinate to the feelings and interests and knowledge of the officers brought up under the old establishments. The new consolidation of works required, as compared with anything which Mr. Leslie appears to have been prepared for, is as widely different as a locomotive is from a common dung cart". (2) As morning after morning Chadwick was

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1. "Every morning nearly I have to give an attendance at Greek Street to give instructions to the Officers: no single Officer being there up to the general views, or having influence: Mr. Stables, not recognising Mr. Hertslet, as Chief, and Mr. Hertslet not liking to instruct or give orders to Mr. Stables: Mr. Roe not liking to interfere with Mr. Phillips or Mr. Phillips with Mr. Roe, and neither advancing readily out of their separate district habits, and all waiting or standing still for orders unless seen to" (E.C. - Morpeth, 9 September 1848).
2. E.C. - Hon. Frederick Byng, 11 September 1848. "Neither Roe nor Phillips have advanced with their position. The latter sent in a Report in respect to Marylebone, which would have exposed us seriously and I was obliged to stop it and have it altered, and the former gave in a report, the other morning which appeared to be almost insane, and the committee at once decided upon its entire suppression. We cannot supersede either, both have considerable merit, but they require an excessive amount of watching". (E.C. - Morpeth, 30 May 1848).

called to Greek Street to reprove the absurdities of the engineers and to smooth over their jealousies and disagreements, he recalled that Roe had been a reluctant witness in support of consolidation, and that Phillips' evidence before the Metropolitan Sanitary Commission had been given its edge by his resentment against his employers. Sir Henry de la Beche had been right, he began to think: the break with the old order should have been sharp and complete.⁽¹⁾ The old officers could not adjust their mental habits, formed under the district commissions, to the wider outlook of the consolidated area, nor could they readily accept the new knowledge quarried by the Trial Works Committee which went against their professional practice for a quarter of a century. It was a fact, they agreed, when the demonstration took place before their eyes, that four inch pipes kept clear whilst larger ones accumulated deposit; yet both continued to put down house drains of double the size they admitted to be necessary. They had too much to unlearn, and though when pressed they might concur in the value of the new ideas, they were too blinkered by old and accustomed practice to catch more than a fractional glimpse of Chadwick's grand design.⁽²⁾

"In respect to the Metropolitan Commission of Sewers I am exceedingly anxious", Chadwick confessed to Lord Morpeth in October 1848. "There is much to be done requiring steadiness science and zeal and so little available force there to do it. The officers have failed more than I had expected, and my expectations were not high. They have failed in suggestions as to details. They do nothing without instructions. Everything

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1. "Sir Henry de la Beche has a stronger impression than myself of the looseness and uncertainty of the old machinery for carrying out new work". (E.C. - Morpeth, 9 September 1848).
2. Forwarding a copy of the Metropolitan Sanitary Report to Sir John Burgoyne (26 December 1851), Chadwick observed: "You will see that in respect to Mr. Phillips the main propositions were put to him not by him and I found that having deliberately assented to the propositions put to him he afterwards set himself in opposition to them, as indeed he had previously carried out works, which themselves were full of what he admitted when questioned to be errors in

has to be reorganized. All their former habits have to be changed; all their "practical" experience, i.e. routine, inapplicable to new conditions, is wrong, it is a delusion and a snare".⁽¹⁾

In his perplexity Chadwick turned ^{more and more} to the reliable Henry Austin, now the Secretary to the General Board of Health, ^{who} ~~was acting as Consulting Engineer to the Commission~~ ^{The} introduction of his favourite strained and eventually ruptured the nominal agreement between the engineering officers of the Commission. Austin was unknown; he was quiet and modest, and had little presence. He lacked the authority which would have enabled him to dominate his two professional colleagues, and to silence the clamorous minority in the Court room. Roe remained faithful to Chadwick, but Phillips seceded to the side of Leslie and Byng.

The clash came in June 1849, when Austin and Phillips produced rival schemes for the disposal of London sewage. Instead of limiting the attention of the Court to minor matters and piecemeal work, said Phillips sharply, --- such as the drainage of a detached and separate district, the advantages of a three inch over a four inch pipe, or the shape of a water closet pan --- the energy of the Commission and its officers should have been concentrated in the first instance on the selection of a sound plan for providing an outfall independent of the Thames. Phillips' proposal, in its essentials, was the construction of about twenty miles of intercepting sewers from Kingston in the West to the Kent or Essex marshes in the East, following the course of the Thames and acting as a substitute for it, at a depth of some hundred feet below the bed of the river.⁽²⁾ The idea was not new. It had been examined and rejected several times since Martin's original scheme was turned down in 1842; and in a modified form it was later to form the basis of Bazalgette's plans for metropolitan main drainage.

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1. E.C. - Morpeth, October 1848.
2. "Letter to the Commission of Sewers on the Drainage of the Metropolis", 21 June 1849. Printed.

Chadwick, his eyes still lovingly fixed on the mirage of gold from sewage, found it totally unacceptable. Far better was Austin's "converging system". By this plan London would be divided into districts, each having a sump, into which the refuse would be collected; from these reservoirs steam engines would eventually pump it out to the farmers through subterranean pipes. In any event, said Chadwick crushingly, whatever plan was adopted, tunnels or sumps, it must wait on the completion of the survey; and in the meantime the Commission must continue with its programme of experiment and preparation, remedying the domestic drainage wherever possible, and flushing the sewers regularly into the Thames.

In this policy he inevitably came into collision with those who held that the Thames was London's greatest nuisance and Londoners' greatest danger. As the summer stinks from the river were wafted through the windows of the office in Printing House Square, the editor of the "Times", with handkerchief to his nose, poured out columns of protest. "Not a single cesspool to be found in the city, --- except one, reaching from Richmond to Gravesend, with an exposed surface averaging a quarter of a mile in breadth! No filth in the sewers, --- all in the river!"⁽¹⁾ The Sewers Commission relieved Church Lane and Carrier Street, but only by poisoning the water supply of the whole capital, a piece of devilry forbidden even by the rules of war.⁽²⁾ It was only a choice of evils, Chadwick replied; the evil of sending the refuse down into the Thames was utterly inconsiderable with the evil of keeping accumulations of noxious matter in densely inhabited localities or of removing it to laystalls.⁽³⁾ The flushing of the sewers he regarded as the greatest contribution which the Commission could make to the defeat of the cholera. In their first month they had flushed 22,400 feet of the Westminster sewers, with a deposit ranging

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1. "Times", 7 October 1848.
2. *ibid.*, 14 September 1848.
3. *ibid.*, 14 January 1848.

from six inches to 3 feet 6 inches, amounting to 3,386 double loads of soil⁽¹⁾; their activity was intensified when the epidemic broke out; and in July 1849 one of the assistant surveyors reported that "for the last six weeks the Commission had spent £150 per week, and each sixpence of that sum represented a load of filth carted away from some locality in the metropolis."⁽²⁾ The intention, and the energy displayed in its execution, were admirable; the results were not --- for the hoarded refuse, including the fresh infected faeces of the cholera victims, was flushed into the Thames at a point opposite the main intake of London's water supply.

Judging the policy of the Commission from one aspect only --- its effect upon the cleanliness of the river --- the "Times" presently passed from occasional criticism to open and permanent hostility. John Walter began to suspect that he had been chosen as a Commissioner less on account of his interest in the sewers than of his influence with the "Times"⁽³⁾; which was only too true. His technical opinions he took from an aged engineer, Stewart, an old-fashioned empiric, who scorned the notion of waiting for the completion of the survey before beginning a general scheme of drainage, and who was in favour of Phillips' plan of deep intercepting tunnels to divert sewage from the Thames. In a series of letters Chadwick attempted to turn the "Times" from its championship of Phillips. The intercepting sewer, he argued, was a reckless and uneconomical method of handling so valuable a commodity as town refuse; the plan amounted to throwing the sewage of London a hundred feet deep in order to pump it up again and send it back several miles in the direction whence it had come to be used as farm manure; it would occupy two or three years, cost two millions, and leave St. Giles', Whitechapel, and Rotherhithe in much the same condition as at present. All this Chadwick explained to Walter

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1. "Orders of Court", vol. 1, pp. 20 - 21, 13 January 1848.
2. "Times", 20 July 1849.
3. John Walter - E.C., 22 July 1849.

and Delane, exuding a breezy confidence that after this exposure no one could possibly continue to countenance such nonsense; but the "Times" still cheered for Phillips and intercepting sewers. (1)

Thus, in the summer of 1849 affairs at Greek Street came to a climax, and the Metropolitan Sewers Commission rushed with increasing velocity on its own destruction. Phillips and Austin exchanged broadsides, each deriding the other's scheme. (2)

Simultaneously the chief clerk, Lewis C. Hertslet, after sternly reproving his employers for not laying down a definite course of action for their works, sent in his resignation⁽³⁾ --- and promptly began to manufacture hollow bricks, £150,000 worth of which would be required for Phillips' tunnel.⁽⁴⁾ A curious little note reached Chadwick from one of the clerks: "Phillips says, and thinks that the Gentlemen comprising the Commission (using his own words) are a lot of old Women or Muffs, and that the Commissioners will not get much out of him unless the Commissioners adopt his plans, for he will not be put down".⁽⁵⁾ In the following month, the debate begun by Phillips and Austin was thrown open to the whole profession, and engineers were invited to submit their plans for the sewerage of London.⁽⁶⁾ It was a victory of the "Times" over Chadwick, who held that no comprehensive scheme could be laid ~~out~~ down until the survey of the capital was completed, and who was continually pointing out that, since the Sewers Commission was already engaged in undoing the work of civil engineers and architects of the highest eminence, it was futile to seek in their ranks for the designer

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1. E.C. - John Walter, J.T. Delane, n.d.
2. "Orders of Court", vol. 2, pp. 105 - 108, 21 June 1849.
"M.C.S. Minutes of the General Purposes Committee", vol. 4, pp. 72 - 91, 28 June 1849). "Letter to Commission of Sewers on Drainage of the Metropolis", 21 June 1849, J. Phillips (printed). "Observations on Phillips' Letter", 29 June 1849, H. Austin (printed).
3. "Orders of Court", vol. 2, pp. 103 - 104, 21 June 1849.
4. "Notes of Information to Lord Palmerston on the foundations of hostility to sanitary measures", MS, c. August 1853.
5. T.F. Greene - E.C., 7 July 1849.
6. "Orders of Court", vol. 2, p. 157, 23 July 1849.

of London's main drainage. When the Court opened on 20 August to receive the plans of the competitors, the room was immediately thronged with aspiring civil engineers. It was a tumultuous meeting, the competitors listening to the Commissioners and each other with great excitement, and the Commissioners present were clearly taken aback by the numbers and rivalry of the competitors.⁽¹⁾ 62 plans were submitted that morning, and another 75 before the competition was declared closed. All were useless, as Chadwick had predicted, being drawn up in ignorance of the findings of the surface and subterranean surveys.⁽²⁾

Every resolution was now becoming a battle ground for the opposing parties, and at times the Court was "nothing better than a beargarden".⁽³⁾ Should the Commission appoint two additional assistant surveyors? "Mr. Phillips, when appealed to, denied that more assistant surveyors were wanted; Mr. Austin as confidently asserted that they were indispensable. Mr. Chadwick spoke at some length on the point, seasoning his observations with further hits at the old commissioners".⁽⁴⁾ When Chadwick remarked complacently that under the old Westminster Commission the cost of removing soil by hand labour had been seven shillings a cubic yard, while now it was flushed away for only sixpence, Leslie rose in a fury of denial and demanded a special meeting to go into the figures. On the appointed day only three members were present in the Committee room to support Leslie. In an adjoining room Chadwick waited with a strong contingent of his friends, ready to enter and swamp the meeting if a quorum were formed; while a beadle was set at the door to intercept Commissioners who looked like

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1. "Orders of Court", vol. 2, pp. 220 - 223, 20 August 1849. "Times", 22 August 1849.
2. "Report on Plans for the Drainage of London. By J.F. Burgoyne, James Vetch, J.M. Rendel, H.D. Harness, Robert Stephenson", 8 March 1850; in "Reports and Communications of Board of Health to Home Secretary on Drainage of the Metropolis", P.P. 1854, lxi, pp. 104 - 111.
3. "Times", 28 September 1849. 4. *ibid.*, 3 August 1849.

straying into the rebels' camp.⁽¹⁾ It was a ludicrous situation which lost nothing in the telling in the "Times" report.

As a gesture of appeasement the Works Committee was thrown open to all members in August 1849.⁽²⁾ The move was a failure. The Committee was now in difficulties, cried Byng, and wished to involve others;⁽³⁾ while Leslie pressed on his attack with a motion that the Trial Works sub-committee, "on account of the expenditure and small results", should be abolished.⁽⁴⁾ In such wranglings and personalities the Sewers Commission was gasping out its life. "Mr. Leslie complained that other Commissioners were allowed to say what they pleased, but so soon as he spoke he was told that he was personal".⁽⁵⁾ "Mr. Bullar complained that the time which should be given to business was wasted by Mr. Leslie in fruitless discussions".⁽⁶⁾

It could not continue. At the end of September 1849 Chadwick appealed to the Government to recast the Commission, in the hope of eliminating Leslie and his friends. The reply, conveyed in a letter from Lord Carlisle "under feelings of very great pain", gave him a severe jolt. Lord John Russell and the Lord Chancellor agreed to supersede the Commission --- "but they make it a condition that neither of the prominent parties in the late disputes and differences should re-appear in the new one". Carlisle continued: "I am upon the calmest consideration I can give to the subject, inclined to think that the course decided upon is under present circumstances the most prudent for the Government, for the Board of Health, and for yourself. From whatever causes, or by whose-ever fault it has happened, the present Commission has lamentably broken down, and there is not at present sufficient

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1. "Orders of Court", vol. 2, pp. 225 - 226, 21 August 1849.
"Times", 22 August 1849.
2. "Orders of Court", vol. 2, p. 204, 9 August 1849.
3. "Times", 10 August 1849.
4. "Orders of Court", vol. 2, p. 281.
5. "Times", 30 August 1849.
6. *ibid.*

confidence in the public mind at large towards any portion of it to make people wait with patience for the inevitable delay and gradual development of the requisite measures. In the present conflict of opinion which prevails upon many of the main points at issue, and amidst the disgraceful squabbles and mutual accusations of our own officers and surveyors, it is clear that even although we could feel sure that the course which you and those who would be most likely to follow your guidance might adopt would be invariably in the right, still the Government and the Public will require the sanction of the highest engineering authority that can be procured. I am aware that you have been disposed to entertain a different opinion, but the times and circumstances make it imperative. I think it at least questionable, allow me to say this, how far you would work smoothly with those by whom you were liable to be over-ruled, and I even feel persuaded that you are more likely to see your own views carried into effect, if you are yourself not one of the executive body --- if you would act more as an amicus, than as an actual Member of the "curiae""(1)

Chadwick was furious that this undiscerning Government had classed him with Leslie as great and equal nuisances. For the second time in his career he felt that he was being made a scapegoat by the Russell Government, while the real culprits escaped uncensured. "I cannot see the justice or the policy of the assumption of there being two parties, or of shaping the procedure so as by implication to divide blame", he replied to Carlisle. "..... I can quite state, that I have often expressed my desire to see the arrangements made, or the time come when I might entirely leave the Sewers Commission. I have felt the anomalous position, but assuredly there was no help for it; nothing would have been done, none of the more essential points would have been pressed, by any other members of the Commission. Not one of them I am sorry to say appears to be aware of the bearing of what has been done as a whole,

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1. Carlisle - E.C., 29 September 1849.

which yet remains to be shewn; still less can they be aware of the bearing of what has been done on the Public Health Act".⁽¹⁾

But the sentence could not be averted, and, despite the polite words of Russell⁽²⁾ and Carlisle, Chadwick felt it to be another rebuff. The Board of Health put the best gloss they could on the affair, and in their Minutes passed off the defeat as a strategic withdrawal. Experience had shown, they declared, that membership of the Commission of Sewers was not compatible with their duties at the General Board. They had therefore resolved that in future they should have no personal connection with any local Board:

"Because as members of a local board, in which they can form only a minority, an undue weight and responsibility may be, and the believe has been, ascribed to their individual or personal influence with the majority; ---

And because as members of a local board they may be in a minority with reference to measures on which, from more enlarged information, they may not only take a different view, but with regard to which it may be their public duty to enforce on their

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1. E.C.- Carlisle, 29 September 1849. He wrote again the following day:

"There are I think very strong and serious reasons why the new Commission should not be issued as proposed until a statement of what has been done and what remains to be done is made and issued.

I cannot understand how arrangements are to be made for the work until some connected view is had of what is to be done. I should doubt whether that can have been given to you. I know that Sir Henry de la Beche who knows most of the subject only knows part of it.

Unless the statement is made before the commission is issued it cannot be made after without inconvenience. I myself shall be exposed to more libels which I must not put up with. Moreover I submit that there is no necessity for rudely and abruptly breaking in before the important reports which are understood to be nearly ready are given"

2. Russell - Carlisle, 24 September 1849: "The chief inconvenience of this course would be that Mr. Chadwick would be omitted. But his abilities are so fully employed in the Board of Health, and are so freely recognised by the Government that I trust he would not see in this omission any mark of want of appreciation of his valuable services".

responsibility an opposite course".(1)

It would have been well for Chadwick if this resolution, the argument of which is unexceptionable, had been passed a year earlier, and if he had severed his connection with the Metropolitan Commission of Sewers the moment he was appointed to the General Board of Health. By September 1848 the large-scale survey, the essential preliminary to the sanitary regeneration of London, was well in hand, and Chadwick might have left to other men the task of building upon the foundation he had laid. There is a limit to the amount of work one man, whatever his resources of energy and will-power, can profitably undertake. To establish a great new department of the central government, and to nurse it through the dangerous years of its infancy, was a labour in which he should have found ample room for the exercise of his abilities. The trouble with Chadwick was that he felt himself to be indispensable. In this field of sanitary reform, where he had been the pioneer, he placed no trust in the judgment of others, however well-intentioned he knew them to be. Sir Henry de la Beche, the geologist, Simon and Southwood Smith, the physicians, Roe, Austin, Rawlinson, the engineers --- all these, and many other friends of the cause, saw clearly some fraction of the whole; but none of them, Chadwick believed, saw the problem in all its bearings so clearly as himself. He hated to delegate his power, because he could not at the same time delegate his knowledge and his vision. It is a dilemma

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1. Minutes, 17 October 1849. In a letter from Carlisle, also recorded in the same minute, he concurs in the resolution: "He would have felt most unwilling to single out any individual name among the members of the Commission, but as one of his colleagues at the Board of Health, Mr. Chadwick, has sustained a prominent share both of labour and of attack, he would think it neither just nor generous to a public servant, where even health has been but too much affected by his unremitting exertions for the good of the public, if he neglected this opportunity of expressing the sense which the Government entertain of his past services, and the hope which they cherish that many more will yet be reserved to him for the general advantage".

known to all benevolent despots.

What had Chadwick to show for his two years at Greek Street? In the severe view of the "Times" --- and the "Times" in this reflected the opinions of the great mass of London ratepayers --- his dictatorship by committee had accomplished practically nothing. It had left unsettled the principles on which London's main drainage was to be laid out. It had not decided whether the Thames was to cease to be a common sewer, or whether London was in future to be drained by sump or by tunnel. Its activity had not extended beyond the flushing of old sewers, the advocacy of four-inch capillaries, and the cleansing of blocks of forty or fifty houses. For that lame and unimaginative policy, concluded the "Times", the responsibility must fall on the man who had manoeuvred himself into the monopoly of power.

It was a heavy judgment, which hung around Chadwick's neck to the end of his official career, and helped to drag him down at the last. And it was an ill-informed and partial judgment. The critics cried for immediate works, as if it were merely a matter of sending out a gang of labourers with shovels and pickaxes to trench and tunnel a passage for London's sewage. The problem of metropolitan main drainage was not so simple as it appeared in Printing House Square. The Commission of engineering experts appointed in 1856 to consider the question took three years to settle the principles, and a further seven years elapsed before Bazalgette's scheme, with its 83 miles of intercepting sewers at a cost of £4,600,000, was finally executed. Chadwick himself had not foreseen how long and how expensive a business it would be (he always insisted that he could have done it more quickly and at less cost)(1). But in

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1. He told Lord Herschell (July 1888) that his plans might have been completed for the whole of the Metropolis "in four years, or by 1856, and the death rates reduced to 12 in a thousand".

two important respects he saw further than his detractors. Until a survey had been completed, however long it might take, no general scheme of main drainage could be undertaken. Bazalgette planned his sewers according to Chadwick's large scale survey. Secondly, in the experiments of his Trial Works Committee Chadwick showed himself to be a generation or more ahead of his critics in recognising the importance of domestic drainage. Even today the designing of the arrangements for removing refuse from the individual household is too often left to the architect or builder, with the result that it is an exception to find anything like a scientific system of house drainage.

CHAPTER 12.

A NEW PRESIDENT.

The epidemic, which had put a severe additional strain upon the overcrowded burial grounds during the terrible months of 1849, had raised in an acute form the question of the accommodation for London's dead.⁽¹⁾ By the amended Nuisances Removal Act of August 1849 the General Board had been empowered to inquire into the state of the metropolitan graveyards, and to prepare remedial measures for the next session of Parliament.

The scheme which Chadwick laid before the Government in December 1849 followed closely the recommendations of his great Report of 1843. Under it the burial of the dead, which was "a most unfit subject for commercial speculation"⁽²⁾, would become a public service, controlled by a small Board of qualified and responsible Commissioners, at least one of whom was to be paid. Parish churchyards, private burial grounds and joint stock cemeteries would all be closed, and replaced by national cemeteries managed by the Burial Commission. All interments

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1. It should be remembered that the Board urged the regulation of the churchyards, not simply on aesthetic and moral grounds, but primarily as a matter of life and death. Lyon Playfair had calculated that the 52,000 metropolitan corpses annually evolved no less than 2,572,580 cubic feet of gas; and it was an article of faith with the Board that putrescent animal matter, in suspension in these gases, was capable of communicating its own state to similar organic matter ("Report on a General Scheme for Extramural Sepulture", 1850, pp. 6 - 7, 9). For this reason the Board opposed the idea of cremation, believing that the atmosphere would be more injured by the burning of 150 bodies a day than by the gradual process of decomposition under a properly regulated system (ibid., p. 118).
2. "Report on a General Scheme for Extramural Sepulture", p. 67. F.P. 1850 (1153), xxi. 575.

without exception were to take place in the National Cemeteries; this monopoly of burial enabling the Commission to enter into advantageous contracts for the 52,000 funerals annually occurring in the capital. The cost of funerals would be regulated according to a series of scales or classes; and Chadwick estimated that the consolidation of the services, together with the economy of large-scale contracts, would reduce the present bills of gentry and tradesmen by two-thirds and of artisans by one-half. To supervise the arrangements, to ensure that burial should be sanitary and decent and cheap, and to perform the other duties which Chadwick had sketched out in the papers submitted to the Health of Towns Commission, there was to be a paid permanent staff composed of one chief Officer of Health and eleven assistants.⁽¹⁾

Such a scheme touched the interests of three main groups, the Church, the Dissenters, and the cemetery shareholders. Parish incumbents would be paid compensation for the loss of their burial fees. Each of the National Cemeteries would have a consecrated portion with a church for conducting the Anglican burial service, and an unconsecrated portion with a chapel for the use of Dissenters. The consecrated portions of the National Cemeteries would remain under the same ecclesiastical jurisdiction as the parochial churchyards which they replaced. The eight joint stock cemeteries⁽²⁾ must be compulsorily purchased, the award in each case being fixed by a jury. Only one of them, Kensal Green, possessed a site suitable for the purposes of the scheme, and this would be enlarged to form one of the National Cemeteries. At least one additional cemetery would be required, and this should preferably be situated near the river. An average of 96 bodies a day would float along this "Silent Highway" from eight houses of reception established on either bank. Chadwick knew the ideal site --- Abbey Wood,

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1. *ibid.*, pp. 87 - 89, 113, 115.
2. Kensal Green, Nunhead, Highgate, Norwood, Brompton, Abney Park, Tower Hamlets, and Victoria Park.

part of an ancient monastic domain, a dry tract of gravel and firm sand rising gradually from the river's edge.

£700,000 was the sum immediately required for the construction of the new cemetery in the east, the enlargement of Kensal Green in the west, and the purchase of the rest of the joint stock burial grounds; and the annual expenditure on interest, establishment charges and compensation would amount to £112,000.(1) The money was to be raised by a loan, payments on which were to be defrayed from the receipts of the cemeteries. The Act would provide for a rate to make good any deficiency, but Chadwick was confident that, even with the burden of compensation and the reduction of the existing fees, no deficiency was to be expected.

In a series of extraordinary papers, addressed to the Government and the Bishops, Chadwick gave his imagination full rein to fill in and colour the outlines of his scheme. Bentham, planning his Panopticon or working out to the last detail the equipment of a Government office, could not have been more patiently thorough than Chadwick as he described the layout of his National Cemetery, the style of the church, the materials of its construction, the arrangements for the chaplain, the choir, the bearers, and the corpse. "From the architecture, from the decorations, everything belonging to pagan structures or periods should be strictly excluded. The style and decoration should be Christian. If it can be so it should be of the present period. If nothing characteristic, solemn, and yet cheerfully impressive can be devised of the present period, which will give satisfaction, then a selection may be made of the older styles in use which appear to give the greatest satisfaction to the largest body of the members of the Church of England." Lord Carlisle was staggered at the inventive ingenuity of his colleague as he described the Crystal Palace grandeur of the church, with its dome of stained glass ribbed with iron, and its floor of encaustic tiles; with its stalls for the mourners, walled with hollow bricks and hung with rich cloth, each distinguished by the arms of one of the metropolitan parishes or the terra cotta effigy of one of the apostles; with

its approaches which might be covered with glass panels in wet weather, and its surrounding avenues lined with full size or colossal statues.⁽¹⁾ It was a remarkable effort of ordered imagining --- and withal a grave imprudence. As Carlisle hastened to warn him, such papers were "apt to ooze out"; and if that happened he foresaw that they "would give rise to a storm of controversy, or at all events be exposed to much cavil and ridicule".⁽²⁾

The thoroughness of Chadwick's plans delighted Ashley. "Should Sir George exhibit a comprehension and a relish for grand and efficient Schemes, we shall have the noblest System of Extramural interment the world ever knew", he told Chadwick.⁽³⁾ The scheme was considered by the Cabinet on the 12th December 1849. "There was a general impression that much needless offence was given to large classes and bodies in the mode of statement", Carlisle reported.⁽⁴⁾ The next day Carlisle and Ashley were summoned to the Home Office, when Sir George Grey apparently intimated that if the scheme was to have any chance of public support it must lose the peculiarly rigid cast in which Chadwick had shaped it.⁽⁵⁾ Carlisle therefore re-drafted the

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1. "Memoranda of draft instructions for consideration for designs in respect to the construction of a church for the celebration of Divine Service at the National Cemetery", MS, n.d.
2. Carlisle - E.C., 26 October 1849.
3. Ashley - E.C., 21 December 1849. He had written on 27 October: "I shall positively refuse to undertake or support any half measure. The thing shall be complete or not at all. We have, besides, the best of Parliament with us. If any limit be assigned I shall decline any Enquiry whatever".
4. Carlisle - E.C., 12 December 1849. The scheme was outlined in a Minute of 4 December 1849.
5. Carlisle - E.C., 13 December 1849. "I hope with great care and discretion we may get through all opposing obstacles, but it will be rather a tough job. You must let me act very dictatorially. I must go into the country on Saturday, but I shall take the Draft with me and study its arrangement and mode of expression. I have not I hope a high opinion of my general qualifications for such a task, except the single one of prudence" (ibid).

Report, and under his tactful pen Chadwick's attack on the undertakers and cemetery owners lost much of its rude directness. In February 1850 the Report was published⁽¹⁾, and --- most surprisingly, in view of the attitude they were soon to adopt --- the Government introduced a Metropolitan Interments Bill two months later. "You have bestowed infinite trouble and most praiseworthy attention to the preparation of a matured plan", wrote Sir James Graham. "I shall consider it very attentively with a disposition to cooperate in promoting it as far as I am able; but Panic has subsided; and Prejudices and selfish interests yield only to Fear in cases of this kind. Much will depend on the state of Public Opinion with respect to your Proposal. When you first made it, the Public Mind was not ripe for the Change. In the midst of the Cholera it might have been carried; I am not unwilling to hope, that with some modifications it may yet be found feasible".⁽²⁾ It was something gained, at any rate, that the man who, as Home Secretary, had set his face against the scheme should now consider that it fell within the range of legislative feasibility.

A Crown appointed Commission, with the power to levy rates, exercising functions which were now possessed by influential if sluggish vestries, threatening the existence of eight cemetery companies and three thousand undertakers, and treading the debatable ground between the Church and the sects, offered a very broad target in the Commons. The Bill was met by the unanimous opposition of the metropolitan members, who coupled Chadwick and the Bishop of London as objects of their boundless distrust; Chadwick for foisting upon the capital a huge job --- "a board attended with its usual accompaniments of clerks, treasurers, secretaries, chaplains, and God knows

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1. 15 February. The descriptive portions of the Report, which added little to Chadwick's Report of 1843, were written by Southwood Smith; the recommendations, from p. 39 onwards, are, however, in Chadwick's distinctive style.
2. Sir James Graham - E.C., 3 April 1850.

what"(1) --- which would put some scores of appointments within the gift of the Whigs; the Bishop for having brow-beaten the Government into promising the clergy fees in perpetuity for services they would cease to render once their intramural churchyards were closed. The political economists argued against any interference with the machinery of supply and demand, but were blind to Chadwick's demonstration of the superior economy of large-scale Government contracts. The constitutionalists were shocked at the meddling with local self-government, but kept silent about the working of that admirable principle during the cholera epidemic. Dissenters were indignant at the introduction of distinctions between dead Christians which were not recognised between live ones, and protested that every living man, whether Dissenter or Anglican, would be mortgaged for a certain sum to pay compensation to generations of clergy yet unborn.(2)

Outside, in the press, and in the lobbies of the House, the undertakers were raising an outcry, just as in 1831 the chiffoniers of Paris had threatened to riot if their vested interest in street garbage were attacked by the French Government. But the Bill had won one powerful and unexpected ally. The "Times", a little troubled at the condemnation of private enterprise as vicious and detrimental, a little dubious of the proposal to control individual choice by Government officers, had yet decided that "the bodies of the dead and the tears of the living are subjects which may be withdrawn from trading speculations without violence to the maxims of political economy".(3) Londoners had reason to be grateful to the Commons for passing this measure, the "Times" told them; adding that it could perceive no compulsion except to deposit the corpse in a place where it would be safe from desecration,

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1. T. Duncombe: Hansard, vol. 111, p. 693, 3 June 1850.
2. Hansard, vol. 11, pp. 677 - 710, 3 June 1850; pp. 856 - 870, 6 June; pp. 903 - 31, 7 June; pp. 1068 - 78, 11 June; pp. 1286 - 92, 14 June. Vol. 112, pp. 122 - 124, 20 June.
3. "Times", 17 April 1850.

instead of in a foul reeking churchyard. (1)

Chadwick's scheme emerged from Parliament with substantially little change --- save in one respect, and that, as it proved, a disastrous one both to the scheme itself and to the reputation of the General Board. Chadwick had recommended a special Burial Commission with four paid members appointed by the Home Secretary; the Government had decided instead that this new duty should be laid upon the General Board of Health, with the addition of one paid member for the purposes of the Act. It was a further burden which Chadwick confidently assumed, but it added one more touch to the legend of his ambition and love of power. If the measure had been bedded out under a separate Commission, the General Board, its time already sufficiently occupied with the tutelage of the Local Boards which its Inspectors were calling into existence throughout the country, would have been saved two years of fruitless labour and anxiety, and the discredit of the eventual failure.

In March 1850, at this delicate stage in the Board's history, when one intricate measure was about to be introduced into the Commons and another (the Bill for metropolitan water supply) was well advanced in preparation, the Earl of Carlisle was appointed Chancellor of the Duchy of Lancaster, and retired from the presidency. Ever since he had succeeded to his father's title, he explained to Chadwick, he had wanted more leisure for his own affairs. But the easy-going Carlisle turned his back without much real regret on Gwydyr House, with its earnest sanitary labours and its unsettled atmosphere of continual controversy. More than once he had threatened to "cut and run". (2) He had supported Chadwick loyally, but with

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1. "Times", 21 June 1850.
2. "Hot water --- hot water --- hot water!", he wrote to Chadwick on 18 January 1850. "Here I have a remonstrance from some of the Commission of Sewers, and some of the best too, about the tone of some of your communications to them. They will give you any information you wish that they can supply, but they cannot have their officers imperiously

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a sense of increasing strain, and though he remained friendly and helpful in the difficulties of the following years, he showed no willingness to take a full share of the "odium sanitatum".

Chadwick could not conceal his alarm that the presidency was again at the disposal of the political chiefs. It had been a miracle that Lord Ashley and Lord Carlisle had been appointed to the Board in the first place, two noblemen both of whom were sympathetic to the sanitary cause and willing to accept Chadwick's leadership with a good grace --- a miracle unlikely to be repeated.

"I cannot help expressing anxiety, at the appointment of any stranger in our peculiar position", he wrote to Carlisle, "particularly of any one with whom Lord Ashley may not cordially co-operate, and he is not likely to cooperate with any one who has not hitherto manifested zeal for our common objects.

Any material change of the Board would at this time be peculiarly hazardous pending the discussion of the interment question, when it is important that the confidence of both the Church and the Dissenters should be maintained undivided as I believe it is in the present Board, particularly in Lord Ashley.

I cannot but perceive, that he is discomposed and anxious on the subject of a change.

With an old Board, and with settled courses of action, there may be little danger from changes in the personnel but with this where all is new, where there has been so much anxiously prepared and agreed upon, where we see many of our chief difficulties and have all I believe a perfect understanding, and reciprocity of feeling, and where the public have confidence, as

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(Continued from previous page) summoned. I think they are quite right in this, and you may depend upon it no co-ordinate body will bear it". When Chadwick wished to take up the point, and uphold the authority of Commissions of Inquiry (the information was required for the Metropolitan Sanitary Commission, the warrant for which had not yet expired), Carlisle implored him, "Pray do not be blowing sparks into flames, or I shall cut and run".

is most unequivocally shown by the extent of applications to us any large change will at this time I am convinced be unsatisfactory to them hasardous to our measures and damaging to the Government. It must present the appearance of dealing lightly and perfunctorily with a business, which they regard every day more seriously.

The extreme zeal and labour which Lord Ashley has bestowed in mastering the subject, will I hope be considered with his feeling upon it". (1)

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1. E.C. - Carlisle, 6 March 1850. He wrote about the same time to Russell:

"For the introduction of a new department, a more fortunate choice could not have been made, than of two noblemen of the highest standing in the country with all parties and of known zeal for the objects in question, manifested before they were in office.

There was also an obvious fitness in having as an ex officio President of the Board a Cabinet Minister, and it tended to the public confidence, that the Government by this arrangement, regarded specially the proceedings of the new department.

The public confidence is shewn unequivocally by the unexpected extent of applications to the Board for its interference.

Will it not shake confidence to alter the arrangements and introduce, at this time a new member of lower office and station, with whom Lord Ashley may not be able to act cordially.

The interment measure is one in which the public feeling is involved more than may readily be estimated. Up to this point confidence is evidently with the measure and with the Board. But it is most important that, on this measure, it should have the confidence of the Church and the Dissenters. The Board has now this confidence particularly in Lord Ashley.

With an old established department changes in the personnel may be made with comparatively little danger. I hope that in the course of another year or so that we shall have got out of the provisional state, and so far established that the changes may be made in this, but at present when there is so much in preparation that is agreed upon, with perfect unanimity of feeling, the introduction of a stranger, or of any person lower in position, or of less public estimation, excites much apprehension.

Would your Lordship allow me to submit for consideration whether the ex officio presidency of the General Board of Health might not be attached provisionally so at the least

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"Whenever I have been deeply troubled in spirit and have received a note from you", he wrote again a week or two later, when it was clear that the loss of Carlisle could not be averted, "it has produced a calming soothing effect, and helped me on in the course of duty; and so it is now, but it is the promise that tho' somewhat separated officially, you will be present and aiding us in our snubs which will be many. I have said amongst my friends that I have never served with any one, whose motives I felt to be more pure and elevated and therefore kindly. I observed only that at times it seemed to me the kindness was in excess for the rudeness, bad passion and sinister interests which were opposed to us"⁽¹⁾

An even more serious blow to the Board of Health than the withdrawal of Carlisle was narrowly averted. Lord Ashley had counted upon having the honour of introducing the Interments Bill into the Commons, and when the measure was entrusted to other hands he sent in his resignation. He was given all the tedious details of the Provisional Orders to steer through the House, he grumbled, but any important measure the Government reserved for themselves; he was to be "reduced to the station of a senior clerk in the Home Office".⁽²⁾ Hardly had he been talked out of his sulks when he heard that another was to be appointed over his head as President of the Board of Health. Again his resignation went in; and he was persuaded to remain

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(Continued from previous page) with the lighter office of the Duchy of Lancaster, and whether if the Presidency of the Board of Works be not held by a member of the Cabinet, the General Board of Health may not be left, as it is provisionally".

1. E.C. - Carlisle, 27 March 1850.
2. E. Hodder, op. cit., vol. 2, p. 318. "They expect me, I perceive, to devote my time, thoughts, almost life, to the business of the Board of Health; to prepare the plans and Bills, but then to have no voice or discretion in the proposal or conduct of them, nor any little honour that may accrue from the scheme and the industry bestowed upon it. (Honour, in these matters, becomes influence and power to do more) I cannot hide to myself my own disappointment; partly, I had hoped that my name (is this an illegitimate desire?) would be inseparably connected with these reforms; and, partly, I hoped that intense labour and anxiety would not be without their fruits". (Diary, April 1850).

only by a promise from Russell that he should have the Bill for metropolitan water supply.⁽¹⁾

If not Ashley, who was to take Carlisle's place at the head of the Board? Looking round for men of good will, Chadwick picked out Lord Ebrington, a member of the Poor Law Board, who had taken part in the early sanitary campaigns and knew something about the subject; moreover, he assured Russell, employing a characteristic argument, the Poor Law Board could be worked just as well by three members as by four, and by transferring Ebrington the Government would save £1,500 a year.⁽²⁾

Considerations of economy and aptitude, however, exerted no influence on the political dispositions of the Russell Government. Amongst the members of a deputation which had waited on Chadwick a few weeks earlier to oppose the application of the Public Health Act to Totnes was one who confessed frankly that he knew nothing about the measure and had never read the Act.⁽³⁾ It was Lord Seymour, heir to the Duke of Somerset --- who now took his seat as First Commissioner of Woods and Forests and ex officio President of the Board of Health.

Seymour's coming fell like a ~~xxxxxxxxxx~~ ^{chilling blast} of scepticism and hostility on the devoted company of Gwydyr House. At their first meeting he informed Chadwick and Southwood Smith that his rule of action in office was "never to act until he was obliged and then to do as little as he could". This remark, observed Chadwick, "was addressed to men who had explored the seats of fever and had each suffered by it, in a new department appointed to promote measures, for the reduction of preventible sickness and death by the wholesale, which they, from study knew to be practicable". Seymour, they heard, "was averse to all such interferences and his saying was that there must be poor" --- "a pretty theory", commented Chadwick in disgust, "that physical degradation and misery was not only an irretrievable,

1. E. Hodder, op. cit., vol. 2, p. 319.

2. E.C. - Russell, 7 March 1850.

3. "Administrative. Notes of Objections to the course taken by Lord Seymour in respect to the Public Health Act", MS, n.d.

but a proper necessity for the great mass of the population". (1)

Seymour's shocked colleagues did not immediately confront his statement of faith, "the policy of which for these times might be questioned for older departments" and which was particularly repugnant to the principle of the Public Health Act, "which is to do with the means granted to us, all the good in our power". (2) But the inevitable clash between Chadwick and Seymour could not be long delayed. The new President left no doubt of the value he set upon the activities of the Board, and complaints presently reached Chadwick that his whole bearing was one of hostility to sanitary measures. He openly declared that he wished to stop as much as he could. Deputations from local authorities and sanitary associations were received curtly and their cases listened to with evident ill-humour. Nearly every officer of the Board was given marks of his disapproval. (3)

On three occasions only during the two years of his presidency did Seymour attend meetings of the General Board, and since his colleagues were so rarely honoured by his presence difficulties soon arose over business which had been conducted in his absence. Not long after his appointment, Chadwick was requested to wait on him at the Woods and Forests. Seymour then produced a paper he had received from the Treasury, and asked "in a very unusual and unpleasant manner" why he had not

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1. E.C. - Russell, n.d.
2. E.C. - Carlisle, n.d.
3. Chadwick describes how Lord Seymour attended a meeting of the Board when a minute was passed to recommend the appointment of Sutherland and Holland for three months to make preparatory inquiries for the execution of the Interments Act. Although he had agreed to the minute, he called in Sutherland a short time later, and "in a most offensive manner" informed him that if the present appointment were sanctioned, its renewal would not. Sutherland, a most valuable officer, had been much hurt by Seymour's manner.

Members of a deputation from the Town Council of Birmingham told Chadwick that Seymour's reception of them indicated decided hostility to the Public Health Act. This was undoubtedly a factor, Chadwick judged, in deciding them to apply instead for a Local Act.

been made acquainted with it, and with the Board's proceedings in general. Chadwick retorted that there was every disposition to advise him of their doings, but that, with a Board which sat daily to deal with such a variety of subjects, it was impossible to keep a person who never came near supplied with information which could be acted upon satisfactorily, unless he could listen for a period in proportion to the time which the Board took in transacting its affairs. "I ventured to represent to him that action upon such a business, otherwise than at the Board, and as a member of it, or upon the hearsay of any individual members in the absence of the others, was not what was contemplated in the act, or understood by the legislature or the public, and was I apprehended not only questionable in law and practise, but led to misunderstandings and unsatisfactory results He told me that he knew all I said as to the practise but inasmuch as he was held responsible by the Treasury he must be informed at all events, of all matters which involved expense. I repeated to him, that there was no other disposition than to give him every information but that if any of the members of the Board were required to act irregularly they should be exonerated from whatever responsibility might be incurred by it. I stated my apprehensions, that for a new Board, jealously watched, surrounded by enemies it was impolitic and unsafe to have any irregularities even in formal practise".⁽¹⁾

On August 5th 1850 the Metropolitan Interments Act received the royal assent,⁽²⁾ and the General Board (with the exception of their President) held a special meeting the same day to decide on the steps necessary to execute its provisions. Southwood Smith, who had ceased to have official standing on the Board when the Nuisances Removal Act lapsed at the end of the epidemic, had been appointed additional member for the purposes of the Interments Act, and Charles Macaulay, nephew of Sir Charles Trevelyan, chief secretary to the Treasury, became

1. E.C. - ? (Carlisle), n.d.⁸⁰⁻
2. 13 & 14 Vict. c. 52.

assistant secretary. Alexander Bain, the assistant secretary appointed under the Public Health Act, had resigned six months before, worn out by the heavy pressure of business which the cholera had put upon the office. His place, in deference to the Treasury, had not been filled; and now Austin, "poor Austin" as Carlisle called him, who had struggled to cope single-handed with the ever-growing correspondence of the Board, threw up the task out of sheer exhaustion and became a Superintending Inspector. He was replaced by Tom Taylor, barrister at law and Fellow of Trinity College, but best known as a contributor to "Punch" and the author of numerous farces. (1)

In September Chadwick and Southwood Smith visited Paris and spent ten busy days accompanying the medical inspectors of the prefecture on their daily rounds and seeing at first hand the successful working of an interment scheme similar in its essentials to the one they were now preparing to carry out. (2)

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1. Minutes, 18 March 1850. The legal business was soon suffering from his cheerfully offhand attention. The Inspectors complained of the loose manner in which he replied to their inquiries; and Chadwick, who had referred Taylor to his own Poor Law orders as a model, had frequently to go over his drafts of bye-laws and weed them of technicalities. Most alarming of all, Taylor presented to the Board, almost as a matter of course, proposals for sanctioning the mortgage of the rates of Great Yarmouth for the very works which had been condemned in the Inspector's report as wasteful and useless. Sending him a lengthy reprimand, Chadwick observed that it was almost publicly notorious that he attended, within the hours of official business, to matters not in accordance with the very serious work in which the Board was engaged. He came late and left early, was frequently absent in the middle of the day, and had now stopped signing the attendance book. One messenger was chiefly employed in taking papers to the printers, the offices of "Punch", or the theatres. Actors and editors had been received in the office, and on one occasion Taylor had absented himself to attend the rehearsal of one of his farces. (E.C. - T. Taylor, 12 April 1852).
2. "Report of Preliminary Proceedings under the Metropolitan Interment Act. From the 5th August to the 31st December 1850", 3 July 1851, pp. 5 - 6.

In the first five months the Board received 5,000 communications on business under the new Act, and sent out nearly five times as many.⁽¹⁾ It must be remembered that, simultaneously with their activity under the Interments Act, the three colleagues were engaged in preparing a scheme for the water supply of the capital, and in introducing sanitary works into over a hundred towns which by now had been brought under their jurisdiction. In their Minutes the analysis of water samples, the choice of gathering grounds, the examination of engineering estimates, the appointment of surveyors and officers of health, the reception of deputations friendly and hostile from the localities, all jostle for attention with questions of cemetery sites, the design of reception houses, and compensation to vestry clerks and churchwardens. It will be convenient, however, to unravel one thread at a time from this tangle, and to follow to its end the story of the Metropolitan Interments Act before turning to other aspects of the Board's work.

Was the scheme workable? Was it practicable for a public board to manage cemeteries, to monopolise burial, and to regulate the cost of funerals by large-scale contracts? To this question Chadwick's reply was to point out that in Frankfort, Munich, Berlin and elsewhere publicly owned cemeteries were in operation, while in Paris the "Service des Pompes Funèbres" worked with general satisfaction; in short, that the measures which his critics declared to be impracticable were practised abroad with great advantage to the community. The only difference, in Chadwick's view, was that his plan, which aroused the appreciative envy of Parisian administrators, was more thorough, showed a clearer recognition of the social objects involved, and provided a superior machinery for public control and instruction. Only the event could show whether or not he was right, and it might well have furnished him with a conclusive reply to his critics. As it turned out, however, his scheme did not succeed; neither did it fail; it was merely

1. *ibid.*, Appendix A, p. 14.

not attempted. The General Board, in eighteen months, never got further than the preliminary skirmishing with the cemetery companies and the Treasury.

From the first it was made clear to the Board that the Treasury disliked the Interments Act, and distrusted the men who were to administer it. A week or two after it had been given the royal assent, Chadwick received an emphatic warning that the measure "would never be allowed to work".⁽¹⁾ The Chancellor of the Exchequer, Sir Charles Wood, had for years been dragged reluctantly at the rear of his party along the dangerous paths of social and economic reform. He had not accepted the necessity for the repeal of the Corn Laws until 1844; he had fought against Ashley's Bill to restrict the hours of women and children; and the only remedy he could see for Ireland in 1847 - 1848 was to wait with Malthusian resignation until famine and hunger had cut off the excessive numbers of Irishmen. Put in charge of the invalid Whig finances in 1846, he directed himself with single-minded devotion to the one object of cutting public expenditure. He had obliged the General Board to begin its work with a staff too small for efficiency, and he never forgot that during the epidemic they had defied the Treasury and appointed five temporary medical inspectors. His views were shared to the full by William Goodenough Hayter, who, as Parliamentary Secretary to the Treasury, was chief whip and paymaster to the Whigs, maintaining discipline and good humour in the party by the judicious dispensation of the loaves and fishes of patronage. He told Chadwick that he considered him and Lord Shaftesbury "no better than a pair of socialists", and frankly declared that he intended to do what he could to hinder them.⁽²⁾ "Mr. Hayter has been sufficiently explicit to me on the subject", Chadwick remarked to Carlisle, as the Interments Act faltered to a standstill in the Treasury bog. "He has told me in so many words that he thought the whole measure entirely

1. E.C. - Lord John Russell, n.d. (1851).

2. *ibid.*

wrong; that he was opposed to our whole proceedings, that he thought it wrong to interfere with trading companies, that we were wrong in our measure as to water supply, that Government ought to have nothing to do with these things: for Government did everything badly, or worse than other people. Certainly his own office has done nothing to reverse that dictum".⁽¹⁾ When the Russell Government fell in 1852, Hayter told Chadwick that he regretted quitting office since he would thus lose the opportunity of "working" the Board of Health.⁽²⁾ Finally, Chadwick thought it was not without significance that the Treasury letters to the General Board bore the signature of G.C. Lewis, who had nearly succeeded in stopping the publication of the Sanitary Report in 1842.

It would be interesting to know how many legislative projects have been killed in embryo by over-cautious Chancellors and unco-operative Financial Secretaries; but there are no mortality statistics for the unborn. The peculiar value of the Minutes of the General Board and of Chadwick's memoranda and letters relating to the Interments Act, and to the Metropolitan Water Supply Bill which we shall consider later, lies in the fact that they reveal in detail how such an abortion was carried out, and light up the motives of those responsible.

The first step must be the immediate purchase of the eight metropolitan cemeteries, the soil of only one of which was suitable for interment, and the simultaneous closure of the overcrowded graveyards, which could be divided "only into such as are bad, and such as are extremely bad". The General Board must take possession at once of every cemetery and graveyard. If only one district were selected for the introduction of the new scheme, bodies would merely be taken outside its boundaries to other grounds in just as bad a condition.⁽³⁾

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1. E.C. - Carlisle, n.d.
 2. E.C. - Lord John Russell, n.d. (1851).
 3. Minutes, 21 November 1850. "Of the eight existing cemeteries, five consist almost entirely of a stiff retentive clay soil, quite unsuitable for the purposes of
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On November 25th 1850, after a careful examination of the sites by their Inspectors, the Board submitted an estimate of the value of the cemeteries to the Treasury, and requested permission to negotiate for their purchase. Two months elapsed before the Treasury replied. The Board's estimates, showing a valuation of £251,000⁽¹⁾, must have been framed on insufficient data, wrote G.C. Lewis at last; the Treasury's own expert was of the opinion that the cemeteries could not be acquired for less than their original cost, which might be as much as £750,000. The Treasury were not prepared to permit the Board to enter into negotiations of such magnitude, which might commit them to any indefinite amount that a jury might award. They suggested an alternative policy. The Board should buy up one or two of the cemeteries as a start, which would enable them to close the worst of the graveyards, and also give them some idea of the exact figure of the compensation which would have to be found; at the same time they might at once take steps to acquire land for a public cemetery, which would show evidence of their intention and ability to carry out the requirements of the Act,

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(Continued from previous page) interment. This soil could only be rendered fit for interment at a cost between two and three times as great as would be requisite for the purchase of new sites where the soil is unobjectionable. Of the remaining three cemeteries, the soil of one is so porous and dry as necessarily to impede decay; of another the soil could not be used without an expensive process of drainage, and out of the whole eight there is only one the soil of which can be considered in its present state as fit for interment".

1. The valuations of Austin and Rawlinson (ibid.), based on estimates of the land, works and buildings, and the laying out of the site, were as follows:

Kensal Green	£53,453	12	5
Nunhead	£39,871	13	0
Highgate	£16,878	4	0
Norwood	£40,927	0	4
Brompton	£43,836	15	3
Abney Park	£24,236	16	4
Tower Hamlets	£23,131	19	8
Victoria Park	£ 8,990	7	11
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	£251,326	8	11

independently of the cemetery companies, and so strengthen their hand in the negotiations.⁽¹⁾

The whole question of a burial monopoly, and of its administration by a public authority, was thus re-opened, and Chadwick found himself repeating once again his familiar arguments against leaving the interment of the dead to the anarchic, irresponsible competition of commercial companies. On January 30th 1851 Lord Seymour made one of his rare appearances at the Board. The reason was soon evident. He moved that the Board of Health was ready to act on the Treasury suggestion, and would open a cemetery of its own to go into competition with the joint stock grounds. When his colleagues refused to adopt the Treasury's "absurd and destructive scheme", Seymour declared their attitude was "most unwarrantable insubordination", and warned them "this would never be forgotten or forgiven by the Treasury".⁽²⁾ The Board ignored his threats, and re-defined their position in two uncompromising Minutes, the substance of which was embodied in letters to the Treasury.⁽³⁾ The Board did not feel it their duty to treat for the cemeteries on the principle of their alleged cost to the proprietors, which might burden all future burials with compensation for works of little public use, on which extravagant and wasteful expenditure had been lavished. But

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1. G.C. Lewis - Board of Health: 22 January 1851 and 13 February 1851 ("Second Annual Report of the General Board of Health, under sec. 73 of the Metropolitan Interments Act", pp. 109 and 129 - 130).
2. E.C. - Lord John Russell, n.d. (1851).
3. Minutes, 30 January and 14 February 1851. Board - Treasury, 31 January and 15 February 1851 ("Second Annual Report", pp. 111 - 116). The Minute of 14 February states "that the principle of unlimited competition as to price without security for the due performance of the services paid for had failed of every object in respect to burial; that, as applied to the provision of sepulture, it was repugnant to the feelings of large classes, and that instead of this system of competition, funerals should in future be performed by contractors, under the Board of Health, engaged to perform stated services at rates of charge to be definitely fixed".

even if the juries were to award the full sum claimed by the companies, it would still be necessary to make the purchase --- and it would still be consistent with the estimates laid before Parliament, which were based on the proprietors' own valuations of £400,000. If the Board attempted to carry out the Act without first securing possession of all the cemeteries, they would find themselves involved in a competition with the companies, "most unseemly and repugnant in itself, and subject to all the disorder and loss necessarily incident to the introduction of a number of capitals in the same field, rendering it impracticable to make the desired reduction of charges to the public".⁽¹⁾ In such a contest the Board would be handicapped by having to find £40,000 of compensation per annum, and by having the further burden of a fixed interest of 4½ per cent. on their capital; while their competitors would have the advantage of closer proximity to the metropolis, and would undoubtedly continue to make unscrupulous use of such insanitary but profitable practices as pit burial and the re-opening of graves after recent interments.⁽²⁾

"I wish to record my disapproval of that answer", wrote Lord Seymour after the Board had despatched their second letter.

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1. The Treasury scheme "would open unlimited and unregulated competition on the largest scale, and from the trading interests involved, with a degree of virulence and desperation which has not hitherto been witnessed, and such as must be offensive to decorum and public feeling, preventive of economy, incompatible with systematic management and accompanied with risk to the public health". (Minutes, 14 February 1851).
2. "It appears to have been overlooked that the Board have no power to direct the corpses from any district where the grave yards may be closed, shall be interred in the particular cemeteries, or new sites which may be opened; neither have the Board any power to regulate the existing cemeteries, and consequently no power to prevent pit burial or the re-opening of graves after recent interments, or any other practices at variance with sanitary principles which lessen the cost of funerals to the Companies; which practices could not be adopted or allowed in any cemetery opened by the Board". (ibid.)

"The Treasury have refused to sanction the scheme proposed by the Board; and since upon this point authority is given to the Treasury by Act of Parliament, it appears to me that the Board of Health, after having fully stated their opinion, should submit to the decision of the Treasury. The course now proposed to be adopted by the Board of Health, in again arguing with the Treasury, instead of acting as they are required, would, if it were copied by other departments which are similarly subordinate to the Treasury, obviously render all the machinery of the Executive Government inoperative"(1)

Chadwick's answer was to point out that the Treasury's proposition amounted to a suggestion that the Metropolitan Interments Act should be dispensed with, and another principle of action be introduced, at variance with that laid down in the statute. By the Act the Treasury were invested only with the responsibility of approving the appointments and the financial arrangements; and if the Board carried out the Treasury's scheme, and became involved in disaster in consequence, it would be no defence to plead that they were acting on the advice of a body which had no legal standing in the matter. "Supposing the plan of competition had failed, as it must, might not the members of the Board have been held to be responsible for the failure, for the delay of the remedy, flatly opposed to their recommendations? Parliament might say what justification have you who had the most information for adopting against your own convictions, a course which you believe to be illegal, as well as impolitic, at the suggestion of persons who have paid only incidental attention to the measure and who are not responsible for it?"(2)

"I feel myself in a position of some delicacy as to being at all an umpire or point of appeal in your unhappy differences", wrote Lord Carlisle, when Chadwick appealed to him, "nor do I think my representations to my colleagues come

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1. 17 February 1851 ("Second Annual Report", pp. 132 - 133).
2. MS fragment, n.d.

with so much effect, as I am always rather considered to be still acting under your spell".⁽¹⁾ And it was the influence of Sir George Grey rather than of Lord Carlisle, Chadwick believed, which prevailed with the Chancellor of the Exchequer, and induced him to consent that the Board should be allowed to proceed with the scheme sanctioned by Parliament.⁽²⁾ In March 1851, four months after the Board had made its original application, the Treasury authorised them to buy out the cemeteries.⁽³⁾ Promptly they issued notices for the compulsory purchase of the Brompton and Nunhead grounds, and made an offer for the Abbey Wood estate at Erith, on which Chadwick planned to build his National Cemetery.⁽⁴⁾ Now came further delays and embarrassments, as the Board encountered the shareholders' invincible belief that their property was worth far more than the sum they were offered. Chadwick urged on Lord Seymour that the Board should be given the powers they had requested in the Interments Report to compel a decision by the findings of a jury, pointing out to him that the experience of his own department, the Woods and Forests, showed how vain it was to expect to purchase land or property for public purposes by private agreement with the owners. The Treasury insisted, however, that the purchase should be made by a series of separate bargains; and the cemetery companies, unwilling to hasten their own undoing, claimed the right to submit their cases to the dilatory procedure of arbitration. Before the Board could enter into possession of the cemeteries they must await the adjudication of nine claims for compensation. By July 1851 the arbitration proceedings for the first two cemeteries had been in progress three months, and were still not complete. At this rate, their solicitors warned them, they would not get possession of all eight in less than a year.⁽⁵⁾

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1. Carlisle - E.C., 1 February 1851.
2. E.C. - Russell, n.d.
3. Minutes, 19 March 1851.
4. *ibid.*, 21 March, 21 April, 8 May 1851.
5. *ibid.*, 1 July 1851.

"The delays to which we have been already subjected have been most disastrous", Chadwick told Carlisle in May. "They have enhanced expense; they have given rise to extreme impatience; we have done our work in one third the time, the other two thirds has been the Treasury, and in part Lord Seymour, all the delays have resulted in differences, and those differences we are confident, it must be said deviations in error.

The appointment of a president who cannot preside augments by one third our delays even if he agree in our views: it could never have been worked if you had not come to the Board".⁽¹⁾

Chadwick now went into the City to raise money for the purchase. To his consternation the Guardian Assurance Company declined the loan on the legal ground that the Board's life was limited by the Public Health Act to five years, and that it might not therefore be in existence at the expiration of the loan. The Directors of the Royal Exchange Assurance Company, who were next approached, examined the estimates of the amount to be expected from fees. They discovered that there was no provision to secure the whole of the interments to the Board; that bodies might be taken to new and unconsecrated grounds outside the jurisdiction of the Metropolitan Interments Act; and that in consequence there was no guarantee that the Board would have power over the whole of the burial fees.⁽²⁾ A powerful

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1. E.C. - Carlisle, 19 May 1851.
2. Minutes, 22 April, 2 May, 24 May, 10 June, 17 June 1851. "Second Annual Report", pp. 7 - 8.

"It is said that as the law now stands, there is nothing to prevent the formation of new cemetery Companies beyond the Metropolitan district to compete with the Board, and that as such Companies would be free from the heavy charges imposed on the Board for compensation, etc., the Board would be unable to support the competition. This objection goes to the root of all the calculations upon which the Board rest their estimates of a revenue, and can be removed by nothing else but relieving the Board from the possibility of competition". (Memorandum on the loan difficulties in

Minutes, 14 July 1851).

reason for their doubts, Chadwick believed, was that the delay in executing the Act had encouraged speculators, and a Bill to establish a Metropolitan Necropolis at Woking was now being canvassed; its promoters claimed that they had the approval of the Government, and Chadwick discovered that the Solicitor General, Sir Richard Bethel, was a large shareholder, and his brother-in-law was the architect.⁽¹⁾

The Board turned now for help to the Treasury, suggesting that the measure should be financed with Exchequer Bills, and pointing out that this would save £17,500 a year on the estimated outlay of £700,000, since money-lending corporations would require a profit of from 2 to 2½ per cent. more than the Government.⁽²⁾ "When I went to the Bank (of England) Parlour, and explained our application for a loan to the Directors, "See, exclaimed the Governor to the Directors, the way in which the Government manages these works, in placing the public at the mercy of money corporations like ours: putting the public at such an expense when it may upon a direct security, obtain the money by Exchequer Bills at so much less". Such Government assistance, argued Chadwick, was granted freely enough for other public purposes --- the annual return listed advances "For Canals and Drainage", "For Harbours and Docks", "For Railways", "For Waterworks", "For Collieries and Mines", "For Enlarging Workhouses", "For Lunatic Asylums and other Public Buildings", "For the Relief of Parishes", "For the Improvement of Cities and Towns". Why not an issue of Exchequer Bills for "Metropolitan Interments"?⁽³⁾

This solution did not recommend itself to the Treasury, however, and thus in July 1851 the Interments Act floundered to a halt. Despite the frequent, earnest meetings in Gwydyr House, the reports, the thousands of letters, the bustling energy of the Inspectors, the Board now found themselves hemmed

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1. E.C. - Russell (?), n.d.
2. Minutes, 1 July 1851.
3. E.C. - Russell, 21 July 1851.

in by a closed circle of perplexities. They could not close the parochial graveyards without substituting alternative places of interment; they could neither ^{buy} ~~buy~~ out the cemetery companies nor provide new burial sites without raising money; they could not raise money because of the defect in their constitution; and when they approached the Government with a view to removing this defect, they encountered a disposition to curtail rather than to expand their powers. Chadwick was on edge with annoyance and anxiety and the irritating sense of labour thrown away. Shaftesbury was on the point of resigning out of pique.⁽¹⁾ Lord Carlisle seemed reluctant to come out in support of the Board and the Report to which his name was attached --- that amiable nobleman too easily took on the colour of the company he was in.

All that the Board needed, in Chadwick's judgment, to make the Interments Act workable was the goodwill of the Treasury and the addition of two clauses: one providing for some other body to assume the liabilities and duties under the Act if the Board of Health were discontinued, the other empowering the Board to levy its fees and impose its regulations on the burial of every person dying within the metropolitan area. Hopefully Chadwick prepared a Bill embodying the two clauses⁽²⁾, and obtained the approval of the Assurance Companies to its terms.

⁽³⁾ After all, he thought, the "insuperable difficulties" of Sir Charles Wood were the merest oversights, which the Commons --- who, in approving the purchase of the metropolitan cemeteries, must have intended that the Board should have the

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1. E.C. - Carlisle, 21 July 1851.
2. "Second Annual Report", pp. 9 - 10. "Metropolitan Interments Act Amendment. Draft of a Bill to amend "The Metropolitan Interments Act 1850", and to provide for the Regulation of Non-parochial Burial Grounds hereafter to be provided", 23 July 1851.
3. "The Board have yet the assurance of persons conversant with the advance of large loans of money; that if what it must be concluded was intended by Parliament, viz.: a good legal security be given, the money may be obtained by loan, with as little difficulty as it is now raised for other local and general public works where the security is satisfactory". (Minutes, 21 July 1851).

means to do it --- would rectify at once if the case were fairly put to them. Shaftesbury showed the two clauses to Sir Charles Wood, who said he had no objection to them but he did not think the House would pass them.⁽¹⁾

The Board's clauses, however, never went before the House. "Instead of doing so", Chadwick complained to Carlisle, "Sir Charles is reported to have represented that the Board had made some propositions which the Government could not assent to, as if it were something new and enormous that they required: whereas all they requested is comprehended in the scope of the act as it stands".⁽²⁾ The Chancellor then introduced a Bill providing for the advance of £137,000 from the consolidated fund for the purchase of the Nunhead and Brompton cemeteries, and announced that in the next session the Board might be deprived of its executive powers and reduced to a Board of Control, the duty of providing the means of burial being charged "either on the parishes or on districts, or on parties".⁽³⁾ It was clear that the Treasury had written off the Interments Act as a dead loss, and were now preparing to wind up its affairs. And worse was yet to be feared. Wood was openly coquetting with the wild men of the Marylebone and St. Pancras vestries. Late one night in an emptying House he announced the "intention of the Government to renew the Sewers Commission only temporarily and next session to bring forward a measure, to put the water supply and also the interments act, under the parochial representatives. Sir Charles made this statement, bowing to Lord Dudley Stuart who forthwith thanked the Government".⁽⁴⁾ Nothing could have been more insolent than his manner when Shaftesbury saw him for a few minutes and conveyed the Board's protest at his sudden change of front.⁽⁵⁾

For some months longer the Interments Act lingered on in

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1. E.C. - Carlisle, 22 July 1851.
2. E.C. - Carlisle, 21 July 1851.
3. Hansard, vol. 118, p. 1552, 25 July 1851.
4. E.C. - Lord ? , 23 July 1851.
5. Shaftesbury - E.C., 23 July 1851.

its state of suspended animation. In October, after nine months of haggling, the awards for the two cemeteries were promulgated at last. The companies had failed so utterly to make out their case, and the Board's offer was thought so liberal, that the umpire declined to call evidence. The companies had claimed £268,111; the Board had offered them £83,707; they were awarded £117,105.⁽¹⁾ Jubilantly Chadwick pointed out to Delane that, though the rate of compensation was one-third higher than the Board had intended to offer, it would not make the total purchase price for the eight cemeteries more than £350,000, instead of the £750,000 which the Treasury expert had estimated.⁽²⁾ On November 24th 1851 the Bishop of London headed a deputation to the Prime Minister and the Chancellor of the Exchequer from the Metropolitan Sanitary Association, and spoke to a brief which Chadwick had put in his hands a few days before. He was convinced, he declared, that the interments question could never be effectually dealt with except by a Government Board composed of men who, like Shaftesbury and Chadwick, had full claims on the confidence of the church and public by reason of their mastery of the subject. The proposal, which had been rumoured, to put burial in the charge of some new body which should also be entrusted with the sewerage and water supply would disgust public opinion. In reply, Sir Charles Wood declared that he was satisfied that the Board's estimates for the purchase of the cemeteries would be exceeded three or four times; he added "that in Edinburgh no one was buried within the city, but the whole was managed by cemetery companies; therefore it did not seem so absolutely impossible to be done by private parties".⁽³⁾ The deputation left with the impression that Lord John did not know much about the matter and Sir Charles Wood knew very little more.⁽⁴⁾

In December the Treasury administered the coup de grâce.

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1. Minutes, 18 October 1851.
2. E.C. - J.T. Delane, n.d.
3. "Times", 25 November 1851.
4. E.C. - Lord ? , c. 25 November 1851.

The Board were instructed to abandon the awards for the Brompton and Nunhead cemeteries, and were informed at the same time that a new interments measure would be submitted to Parliament early in the coming session, framed on principles essentially different from the existing Act.⁽¹⁾ "There is no use, I am sure, in fighting against power, unless we have something on our side to appeal to", wrote Shaftesbury resignedly. "You particularly and the Doctor cannot long resist, and retain your positions; and we shall then lose all by endeavouring to save half".⁽²⁾ A word from the Treasury, an additional clause or two, Chadwick reflected bitterly, would have saved the Interments Act and the Board of Health from the reproach of failure. Convinced as he was that "measures for the relief of pain and physical suffering should have the precedence over all others"⁽³⁾, he was perplexed and bewildered by this absence of goodwill. The more he thought of it the more incredible it seemed to him that "a matter of the most solemn moment, the horrors of a thousand agonising scenes to the population"⁽⁴⁾, should be so lightly dismissed by the Government. Nothing had happened to show that his scheme was unworkable and based on wrong principles, yet official encouragement was now being given to everything that had been condemned in evidence, trading in burial, joint stock cemeteries, and parochial management.

Surveying the unhappy history of the Act, we can see that by the end of 1850 the Government had got over its cholera panic and had had time to think twice about metropolitan interments; and its second thoughts, coloured by a general suspicion of central Boards and of interference with private enterprise, were against Chadwick's National Cemeteries. While still anxious to be rid of the indecencies of burial within the capital, and to find a remedy for a nuisance which thrust itself on the eyes and noses of Members of Parliament every time they went by St.

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1. Minutes, 15 December 1851.
2. Shaftesbury - E.C., 7 December 1851.
3. E.C. - Lord ? , n.d.
4. E.C. - Lord ? , c. 25 November 1851.

Margaret's churchyard on their way to the House, it was not prepared to sanction the peremptory intervention of the Board of Health. In the Treasury view the Board were committing the Government to a vast undefined expenditure for a dubious object. Hayter told Chadwick in conversation that the cemeteries would never be bought for less than a million; to which Chadwick roundly returned that, if Hayter were not a shareholder himself, he was speaking in the interests of shareholders.⁽¹⁾ Certainly the Treasury produced no evidence to support Sir Charles Wood's assertion that the purchase price would be three or four times the amount stated by the Board; the arbitration awards in the case of the Brompton and Nunhead grounds, indeed, showed that Chadwick's figures were far more reliable, and that the total cost of buying out the companies would be well within the estimates which Parliament had before it when approval was given to the scheme. Behind the curtain of financial scruples, in fact, the Treasury concealed a more powerful motive for its opposition. Seymour, (a former Secretary to the Treasury), Wood, Hayter, Lewis, had all been trained in the negative traditions of the old administrative service, and all took the narrowest views of the functions of government. Their faith was in the efficiency of private enterprise, and their principle of action was to leave to the capitalist anything out of which he could make a profit. They doubted the strength of government to shoulder any further burdens; and with good enough reason --- Hayter, the Patronage Secretary and "broker-general in offices", was well aware of the quality of the placemen who were nominated by him, at the instance of party supporters, to the departments of State. They sighed with relief when they found that oversights in drafting had rendered the Linterments Act so imperfect as to be promptly reversible.

Thus, the Board of Health, turning from their absentee President at the Woods and Forests to the Treasury and back

1. E.C. - Russell, n.d.

again, were, as Chadwick described it, very much in the position of a person engaged in litigation connected with those two ancient jurisdictions, the Court of Chancery and the Court of Exchequer, who could take no step except with their approval and at their pace.⁽¹⁾ Now both of these channels of communication with the Cabinet --- the President who was the interpreter of their views, the Treasury who acted as the financial censor of their conduct --- were openly hostile to the persons and measures of the Board. Disaster came, in Chadwick's view, when no minister high in responsible office could be induced to find the time to enter into the subject with a sincere desire to surmount the difficulties. The Board's activities lay at the very periphery of ministerial attention. Their scheme had been read and studied in detail by no member of the Cabinet, except the Earl of Carlisle, and perhaps Sir George Grey, who took no interest in the measure once it was passed. As Chadwick foresaw, when he implored Carlisle not to leave the Board in 1850, "half-knowledge would be continually finding imaginary false difficulties and finding real ones insuperable".⁽²⁾

The Metropolitan Interments Act, which had started on its way with such bright hope some eighteen months before, had now returned to lay its burden of discredit at the door of Gwydyr House. The Board had failed to close the overcrowded churchyards. The Board, it was said, had made the measure unpopular. The Board had threatened the Dissenters with intolerance and the parishes with tyranny. The Board had frittered away its time in protests and appeals and reclamations. All this was the fault of the Board --- but in particular of Edwin Chadwick. "That gentleman was no doubt very ingenious", cried John Bright, when Parliament was asked to vote the money for the purchase of the two cemeteries, "and whenever he had a board with such persons as Lord Shaftesbury sitting at it, he would be sure to pull the wire. And he did

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1. MS fragment, n.d.
2. E.C. - Lord? , n.d.

pull the wire, for if they granted the sum now asked for, Mr. Chadwick would become the arbitrary dispenser of more patronage than was in the gift of officers filling the highest situations in the Government".⁽¹⁾ In every clash of the Board of Health with hostile interests, the public now saw further evidence of the uncompromising harshness of his mind; in every suggested addition to the Board's functions, evidence of his ambition and love of power.

1. Hansard, vol. 118, p. ⁻⁰⁻367, 22 July 1851.

CHAPTER 13.

LONDON'S WATER AND LONDON'S GOVERNMENT.

Throughout 1850 and 1851, while the Board were making their fruitless effort to put into effect the provisions of the Interments Act, a greater project for improving the health of the capital was pursuing a parallel course to disaster. In May 1850 Chadwick produced another bulky report, the Report on the water supply of the metropolis, in which he once again trod that well worn path of argument first blazed eight years before. He had succeeded in consolidating seven of the Sewers Commissions; he now aimed to unify the nine companies which shared the supply of London; and the final step he contemplated would be to bring water supply and drainage together in a combined service, administered by a single body for the whole of the metropolitan area. In short, he could see no reason why his principle of sanitary consolidation, the principle of the Public Health Act, should not be applied to the capital as much as to any provincial town.

The foulness of the dilute sewage which was pumped to the average Londoner as his domestic water supply was by now so clearly demonstrated that even a witness from one of the companies was prepared to admit that offensive matter made the water "not so pleasant" --- though, Chadwick noted, he spoke as if "the water-drinkers are regarded as a small or eccentric set in the City, and that such pollutions of their beverage are things of no moment, calling for no remedy, and treated as a joke rather than otherwise".⁽¹⁾ But even if the Thames could

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1. "Report on the supply of water to the metropolis", p. 45.
P.P. 1850 (1218), xxii. 1.

be protected from contamination by sewage and be purified of animal and vegetable matter, asserted Chadwick, it would still remain an unsuitable source for London's water supply. It was too hard, twice as hard as the average for 150 rivers examined by the Inspectors of the Board of Health. Every day 26 tons of lime passed through the pipes of the water companies, coating the inside the kettles, baths, and boilers, and using up excessive quantities of tea and soap. "The washerwomen's interest" (which in the aggregate was larger than that of all the cotton and linen manufacturers) demanded that the Thames, the Lea, the New River, the Colne, the Wandle, and other tributaries of a similar degree of hardness should all be abandoned as early as practicable.⁽¹⁾ From 150 square miles of gathering grounds, from Richmond and the heaths of Bagshot and Farnham, London could derive a supply double that now furnished by the companies, and only a third or even a tenth as hard as the water of the Thames. The evidence was conclusive in favour of "the principle of soft water supply by means of gathering grounds".⁽²⁾ An entirely new supply of the softest water, pure, filtered, and aerated, could be delivered on the constant system in unlimited quantity for drinking, cooking, washing, and all domestic purposes at an inclusive weekly rent-charge of twopence a house. At the same time, since it was axiomatic that drainage and water supply were two inseparable aspects of a single problem, he sketched out a plan for the main drainage of London. Soil water should be sent out of the capital through pipes, skirting the cultivated lands where much could be let out as manure, and the surplus discharged so far down the river that no portion could be brought back by the return tide.⁽³⁾ The gross outlay for water supply and drainage, Chadwick estimated, would be £2,142,000, necessitating an average weekly charge per house of 5d. --- less than the present charge for a defective water supply alone.⁽⁴⁾

1. *ibid.*, p. 82.
3. *ibid.*, p. 280.

2. *ibid.*, p. 113.
4. *ibid.*, p. 231.

In this scheme there was no place for the water companies.⁽¹⁾ No consideration of profit should enter into the supply of a commodity which was absolutely essential to the health, physical and moral, of the people. Yet the companies proceeded on the principle of charging the consumer not merely the cost of the service, but according to their estimate of his necessities and his presumed capacity to pay. The promises made by the companies when they were first established made ironic reading now. Sir William Clay, chairman of the Southwark and Vauxhall Company, had once observed indeed that they could not have kept their promises, and would have been fools if they had.⁽²⁾ The Grand Junction Company had gone before the public forty years before with a programme of pure water, a constant supply, a high service free of extra charge, and lowered rates. Once its pipes were laid it had pumped its water from a point opposite the Ranelagh sewer; it had withdrawn its constant supply, and obliged its tenants to spend £50,000 on cisterns; and it had made its high service subject to a rate twenty times its actual cost.⁽³⁾ Chadwick did not conceal his disgust at the bland inefficiency of the water companies, the costly inadequacy of their works, and their frankly predatory attitude to the public. He protested against the abandonment of a public service to private enterprise. The supply of water to a town had been looked on as a municipal duty from earliest times, and it was only during a low state of public administration and ill-informed public opinion that the concessions had been granted to joint stock companies. "There is no reason to conclude that the maintenance of Companies, based on such concessions, and supplying water for purposes of exacting profit, is necessary, wherever there is the requisite

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1. There were nine of these, viz. the New River, Hampstead, Chelsea, East London, Grand Junction, West Middlesex, Lambeth, Southwark and Vauxhall, and Kent.
2. "Notes of heads of remonstrance on the Metropolitan Water Bill", MS, n.d. (c. 1852).
3. "Promises held out in the prospectus of the Grand Junction Company", MS, n.d.

knowledge or public spirit on the part of the authorities to provide for an object eminently of public concern, with no other consideration than public interests".⁽¹⁾ Nor was there any need for the State to be gentle in resuming the rights which had fallen from its grasp in a period of debility, and which the companies were now so flagrantly abusing. Water flowing in a stream was "publici juris", a commodity which as property belonged to no individual, but the use to all. Since the companies could not claim the Thames and its tributaries as their property, all the property they really possessed was their distributary apparatus --- most of which, Chadwick privately declared, was scarcely worth more than the old iron of which the pipes were composed.⁽²⁾ "Water Companies, however they may have been originated and conducted, have, we apprehend, no more claim to be protected against improvements, than have the owners of stage coaches, or posting-houses, or the shareholders of canals and turnpike trusts against railways, or railways themselves against each other in the case of competing lines".⁽³⁾ The Government should therefore take steps to acquire the water works, the amount of compensation being fixed by arbitration or by the award of a jury.

But who was to inherit the works and functions of the water companies, and combine them with the administration of the sewers for the execution of Chadwick's grand plan for the sanitary redemption of London? He dismissed brusquely the idea of a municipality, for reasons which he developed later in greater detail.⁽⁴⁾ The metropolis had a national importance as the seat of Parliament, the centre of law and commerce, and the occasional residence of the population of the whole empire. The administrative machinery suitable for a provincial town would be inadequate for London, and any attempt to introduce it must open up new and large political questions the settlement of

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1. Report on Water Supply, p. 288.
2. E.C. - F.O. Ward, 6 October 1849.
3. Report on Water Supply, p. 272.
4. Below, p. 485 - 489.

which would delay the remedies so urgently needed.⁽¹⁾ The tendency of recent legislation had been to consolidate administrative bodies and to extend administrative areas; to ensure the individual attention of competent and responsible paid officers; to protect minorities and give them rights of appeal; to raise new securities for guarding the public interests against the narrow selfishness which was apt to predominate in small communities. Hence the water supply and drainage of London should be entrusted to a small Board of paid and skilled officials. Three competent officers, meeting daily and giving undivided attention to the subject, could push through business at six times the speed of the present thirteen Sewers Commissioners, who met only once a week or fortnight in committees of varying composition; "while a pecuniary saving would be effected even after the payment of these officers, which would show the present practice of honorary service (implying intermittent service and delay) to be the most grievous public and private waste".⁽²⁾ Such a Board would be responsible to the Government, and through Parliament to the ratepayers; and in addition it would be surrounded with the additional guarantees set out in the provisions of the Public Health Act for explanatory reports and estimates, for public audit and the publication of accounts, and for the execution and maintenance of works on contract by open tender.

It was a bold, simple plan, argued with great power and at times with passion as Chadwick confronted the interests which barred the way to a cleaner, healthier London. The Report, it must be emphasized, contains three distinct proposals: - first, that the water supply of London should be derived from new sources; secondly, that the water companies should be bought out by the public, and their works consolidated; and thirdly, that an executive commission should be appointed to administer the combined service of water supply and drainage. By Chadwick

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1. *ibid.*, pp. 285 - 286.

2. *ibid.*, p. 301.

these three proposals were regarded as inseparable elements in a single scheme; but, in fact, each of them --- a soft water supply, public ownership, an executive commission --- was supported by an independent body of reasons, and might have been isolated for consideration on its own merits. A public monopoly of the water supply was the great object to be achieved. It would be better to dispossess the companies even if London continued to draw its supplies from the hard water of the Thames; it would be better to dispossess the companies even if their functions fell to some other form of authority than the executive commission that Chadwick desired. We may, at the outset, lay a finger on one reason for Chadwick's failure in this, as in so many other projects. Once he had arrived at a solution, after an exhaustive examination of the evidence, he committed himself to it wholeheartedly, harnessing to it all the energy of his emotions and his intellect. In that singleness of mind there was too little room left for manoeuvre, for modification, for compromise. He was incapable of cutting and moulding his schemes to fit the resistant pattern of other minds, suppressing criticisms in detail so long as the main principle were established, sacrificing with good will a lesser good that a greater might be achieved. He had, as the Earl of Carlisle told him, "possibly too ardent a strain after perfection which necessarily becomes one-sided in a world of so many mixed considerations".⁽¹⁾ It is to be regretted that Chadwick did not concentrate his attention upon the primary task of buying out the companies and consolidating the supply under a public authority. Instead he wandered off into the wilds of Surrey in search of the perfect source, and the clear-cut administrative scheme of the Board became entangled with disputed questions of chemical analysis and hydraulic engineering. He was thus driven to extend his lines to defend positions which were not vital, and to press arguments which later scientific developments rendered largely irrelevant.

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1. Carlisle - E.C., 4 October 1848.

"I have patiently endured the misrepresentations and obstructions of the Treasury", Chadwick wrote to Carlisle on May 4th 1850. "I have postponed any counter representations to Sir Charles Wood or to Lord John Russell; I have repressed all complaints; I have forborne writing to you at all in order to get through this draft report on the Water Supply".⁽¹⁾ Now that the scheme was before the public, he hoped to get the Government's sanction before the end of the 1850 session to take the preparatory steps for the consolidation of the water works. Once again, however, he had fallen into the error of assuming that the hearty assent he heard in Gwydyr House would find an echo in Downing Street; and that the Government, in admitting the cogency of his arguments, were prepared to shape their policy on his recommendations. The Treasury would be very restive on the question, Carlisle warned him⁽²⁾; and two days later Ashley added, "We must be very circumspect. I see clearly that the parties are anything but friendly. Go forward very gradually".⁽³⁾ When Parliament went into recess, the Board had secured their Interments Act, but the Government were still avoiding a decision on the water supply scheme. The Board must get ready for an arduous November campaign, wrote Ashley, when "we must pipe all hands, God helping us, for the water-supply".⁽⁴⁾

The interval, as we saw in the previous chapter, was largely spent in preparations for implementing the Interments Act; but from ten o'clock to ten o'clock one late summer day the members of the Board wandered over the wild heaths of Surrey, round Farnham, in search of gathering grounds. This preliminary survey promised well, and Chadwick took immediate steps to have the results checked. For once he made an unfortunate choice of agent. The Honourable William Napier was a high-minded young man, who bore a burden of debt with the

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1. E.C. - Carlisle, 4 May 1850.
2. Carlisle - E.C., 12 August 1850.
3. Ashley - E.C., 14 August 1850.
4. Ashley - E.C., 18 September 1850.

careless charm of good breeding and an aristocratic name. The combination of charm and family probably had its effect on Chadwick, who, for all his scorn of the intellectual qualities of the upper classes, had something of the snobbery of the man who has clambered several rungs up the social ladder. It is difficult to understand otherwise why he should have accepted so readily Napier's offer to make (for expenses only) a closer examination of the Farnham gathering grounds. Chadwick could have laid his hand on a dozen men better qualified for the task, whose reports would not have been so vulnerable to attack.⁽¹⁾

Napier spent some six months in Farnham, but beyond underlining Chadwick's superlatives and feeding his faith in the soft sand springs, his researches did not amount to much. The water was undoubtedly there. "Gushes of water as big as one's waist", cried the enthusiastic John Simon, when he checked over the results, "with scarcely perceptible alteration by any reagent!".⁽²⁾

A few weeks' exploration into every hill and copse of the district revealed forty-four streams, with a yield sufficient to supply half a million houses; "the water being of its primitive purity; perfect as to aëration; brilliant in colour; soft almost as distilled water; of a grateful temperature, about 50°; and almost free from all mineral, animal, and vegetable impregnation".⁽³⁾ The great fact determined by Napier's

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1. "I find that a great deal of the existing hesitation depends on those unlucky reports --- so startlingly loose and contradictory. However, what is done, is done; --- and we must fight from our position such as it is. But it should be a lesson for the future, to be excessively cautious how reports, carrying the semi-sanction of the Board, go forth in a form calculated to excite mistrust of the entire case". (F.O. Ward - E.C., 21 January 1851). "Napier's errors (with the grossness of which I am more astounded the more I observe the ground here for myself) have damaged us so much that we can't afford any more random reporting". (F.O. Ward - E.C., 30 July 1851).
2. J. Simon - E.C., 21 October 1850.
3. "Further Examination of the "Gathering Grounds" for the proposed Government Water Supply to the metropolis, as contained in a Report to the General Board of Health, by the Hon. William Napier", p. 6.

investigations was that the minimum quantity in a period of unusual drought, such as the summer of 1850, would suffice to give an increased supply to the whole of the metropolis.⁽¹⁾ More and more rosy grew Chadwick's view of the possibility of collecting the threads of the Surrey springs, and bringing them --- forty million gallons at 1° of hardness --- in one continuous stream from the Hindhead to the attic of the highest house in London. With this amended supply, he assured Prince Albert's secretary, they could wash the streets and houses of London in readiness for the Great Exhibition.⁽²⁾

When Ashley returned to London at the end of October, invigorated by a three months' holiday which had saved him from a breakdown, he was delighted to hear the results of Napier's researches. He would write at once to Grey, he said, for authority to prepare the water Bill.⁽³⁾ A week later he had been in touch with members of the Cabinet, and doubt was beginning to creep in. "Will our Government have courage and principle to carry the plan into effect?" he was wondering.⁽⁴⁾ One day Lord Seymour came to the office, and to Chadwick's amazement demanded to know upon what authority the Board had investigated the water supply of London, and objected to any further proceedings upon the matter. For answer Chadwick directed his attention to the recital at the opening of the Report itself.⁽⁵⁾ With heavy foreboding, Ashley noted in his Diary, "The Water Supply, for which alone I remained at the Board of Health will be set aside or emasculated by the Government; and yet I made this measure a condition of my stay there. The situation is painful, because it is become that of a clerk, and I am made, by Seymour and Grey, to feel it hourly. The Board has no free action, no power to effect any of its decisions, for the Treasury and the Home Office refuse, or

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1. "Memorandum. The plan of improved Water Supply of the Metropolis", printed, 9 December 1850.
2. E.C. - Col. Phipps, 19 October 1850.
3. Ashley - E.C., 25 October 1850.
4. Ashley - E.C., 2 November 1850.
5. E.C. - Carlisle, n.d., c. January 1851.

thwart, every proposition".(1)

On December 19th G.C. Lewis informed the Board that the Treasury did not deem it expedient at present to incur the expense of a plan and levels of the district which Chadwick had indicated as the future gathering grounds for the capital.(2) And in the first month of 1851 the friction between the imperious Seymour and his imperious colleagues struck into flame. A curt note to the Secretary demanded to know who had authorised Napier to continue his inquiries into the Farnham gathering grounds beyond the period sanctioned by the Treasury. The challenge was taken up by Ashley as the champion of the Board, and there was a sharp exchange of letters.

"It appears to me", wrote Ashley, "that if you conceived there was ground to censure your Colleagues for any course they had pursued you would have done better to have called them together and heard their explanations. You might then while you listened to their explanations have ascertained who they were who had concurred in the Resolution. But to write in such terms to the Secretary, and make such a demand without one word to those who were associated with you at the Board, is, I am sure, a mode of action which, on reflection, you will, yourself disapprove."(3)

Seymour replied the following day. "It appears to me that I should have been informed of this proceeding on the part of the Board of Health. Explicit directions were sent from the Treasury to the Board of Health that they should submit to me any proposal involving expenditure". He would certainly have objected to a further investigation by Napier if he had been made aware of the proposal. "A Scientific enquiry should in my opinion be conducted by Scientific Men: whereas now instead of a Satisfactory opinion, we have received a paper suited only for a Monthly Magazine. The practice of the

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1. 12 December 1850: E. Hodder, op. cit., vol. 2, p. 320.
2. Minutes, 19 December 1850.
3. Ashley - Seymour, 6 January 1851.

Ancient Peruvians, and the Canals made by the Moors, the Water courses of Mesopotamia, and extracts from Sale's Koran, are surely not the materials which should be presented to the Government and to Parliament by the directions of the Board of Health.

I object to this sort of Report because it wants Scientific precision. I object to it still more because it is deficient in that spirit of impartiality which it is the duty of Government to maintain in all inquiries, and which is more particularly requisite in reference to a question, where it may hereafter be necessary that private interests should be sacrificed to the attainment of a great public benefit."

He concluded: "It is still my intention, if ever the Board of Health initiate proceedings involving new expenditure in contravention of the Treasury directions, to remonstrate against such a course. I am aware of the Severe animadversions which this received from the Treasury before my accession to office, and I wish to act in such a way that I at least may not be liable to such censure".⁽¹⁾

This was the first he had heard of "orders from the Treasury", replied Ashley. "I do not presume to question your right to find fault with your Colleagues, to restrain expenditure, and insist on the most minute and scientific statements, in every case, great or small that can be brought under the notice of the Board. I remonstrated with you, and I am sure in a very dispassionate manner, on your mode of action towards us; I suggested simply that it would be more agreeable to us, and certainly in consistency with the proper and necessary rules of Board operations, that you should personally convey your differences of opinion, hear the explanations we could offer, and ascertain not by copy of Minutes and lists by the Secretary, but from our own avowal, who were or were not, parties to the Resolution. I have sat

during many years on various Commissions, but I have never before been subjected to that form of control; certainly your predecessor, Lord Carlisle, who was very seldom able to attend, did nothing of the sort. He came personally whenever he had any doubt or difficulty and the result was a most friendly and comfortable unanimity".⁽¹⁾

Seymour, hearing of Carlisle's virtues, must have experienced something of the disagreeable feeling of a second husband whose wife continually sings the praises of his predecessor. He could have derived little more satisfaction from Ashley's next letter:

"On my arrival in London this Morning I directed a Search into all our records, and I questioned my Colleagues and the other Functionaries of this Office to ascertain the correctness of the Statement in your Letter. You say "Explicit directions were sent from the Treasury to the Board of Health that they should submit to me any proposal involving expenditure". May I ask you when and how? I never heard of this regulation before. We can find nothing, we can remember nothing of the Sort. I must therefore deny the accuracy of your assertion, and indeed the case is clear, for surely the Treasury would never have issued an Order which, in fact, would have been illegal, that, on a Board consisting of four Commissioners, three should be compelled to submit their proceedings to the fourth, who did not intend to take any share in the business, or even ~~to~~ be present at their deliberations. As a matter of courtesy and convenience we would have acquiesced, as far as it was practicable, in such an arrangement (as indeed we did acquiesce) but if it be demanded by an act of authority, and the Board thereby be deprived of all independent action, I, for one, shall refuse to be subject to the Order .

Next Mr. Chadwick informs me that he stated to you, by word of mouth, the circumstances of the acceptance by the Board

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1. Ashley - Seymour, 8 January 1851.

of Mr. Napier's gratuitous services (gratuitous excepting the payment of his personal expenses) for the purpose of making further inquiries as to the resources of Water Supply. Mr. Napier was not sent out a second time but being actually on the Service he was requested somewhat to extend his operations. You did not at that time record nor have you since recorded any objection, either to the measure or to the Report, tho' many opportunities to do so have been offered.

I am sorry that you endeavour to throw such contempt on Mr. Napier's report; it is to my mind of great value and eminently practical, out of 34 folio pages, less than two are devoted to the system of Peruvians and Moors in these Sanitary matters, and I cannot see that he is reducing his Report to the level of a "Monthly Magazine" because he avails himself of the experience of other ages and Nations.

You say further "I am aware of the severe animadversions which they (the Board of Health) received from the Treasury before my accession to office". I regret that you have revived this charge, because it must revive a discussion that I had hoped was at an end. The chief part of the case is this. During the fury of the Cholera in 1849 the labours of the Board were excessive; the mortality in September had, in London alone, reached nearly 500 a day; the most urgent and terrific appeals were made by authorities of all kinds for further assistance; our Inspectors supported them, and required the Services of six additional Medical Men for house to house visitation. We applied to the Treasury but no answer was received; I then went over myself but I found that no one was in London, neither the First Lord, the Chancellor of the Exchequer, nor either of the Secretaries; all had quitted the Town; what could be done? The affair was too serious for delay; we appointed the Medical officers, and notified the fact to the Treasury. Severe comments were no doubt made, but with the greatest injustice. Sir Charles Wood afterwards communicated to me that, tho' there

was a defect in form, he had no doubt of the necessity of our arrangements

P.S. The whole expense of the six Medical Men did not exceed £500".⁽¹⁾

Seymour's reply came the same day.

"It seems to me from your Letter that you have not received correct information upon the matters to which you refer.

We need not however argue about them, because as regards the future I will ascertain from the Chancellor of the Exchequer what my duties and responsibilities are, if I am not responsible for any proceedings of the Board of Health I shall be quite satisfied, but if I am to be held responsible, it seems to me reasonable that I should not be left in ignorance of the proceedings. Either decision will satisfy me".⁽²⁾

Ashley's answer was blunt.

"I am sorry to repeat that we have kept you duly informed of all our proceedings.

I am, and I have been, most anxious to study your comfort and convenience, but I cannot consent that the Treasury should give, what, in fact, it has no power to give, and what it has not yet attempted to give, authority to one, and that an absent Member, to control at his will the deliberations of three others.

In laying the case, as you intend, before the Chancellor of the Exchequer, I must request that you will lay before him the whole of this Correspondence".⁽³⁾

"I never thought of taking up his time with it", was Seymour's lame response. "I have no copies of my Letters and could not therefore do it".⁽⁴⁾

"It is a very sad thing that the time of the Chancellor of the Exchequer should be taken up by reading the

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1. Ashley - Seymour, 10 January 1851.
2. Seymour - Ashley, 10 January 1851.
3. Ashley - Seymour, 10 January 1851.
4. Seymour - Ashley, 10 January 1851.

Correspondence between you and me," ran Ashley's justifiable retort, "but your determination to refer the case to his decision has made the perusal of it necessary. He cannot give a judgment unless he shall have heard both sides of the question

Now the question is, not what the Treasury will say, but what it has said. You charge the Board and me among the rest with neglect of duty and disobedience to "explicit directions". I asked you before, and I now ask you again "When was the Order given. What was it; was it be word of mouth or in writing, where is it now to be found?"

Remember that this is a serious affair. I have requested you with great courtesy, and I most respectfully request you again, to give me answers to these queries.

You cannot surely, as the Head of the Board, or as a private individual, persist in refusing me".⁽¹⁾

Pinned down at last, Seymour asserted that he "understood" such directions had been given to the Board by the Treasury or by the Chancellor of the Exchequer.

"I was confirmed in this view because in August I wrote to the Board of Health requesting to be informed before any proceedings involving outlay of money was sanctioned by the Board, and I received a reply dated the 27th August stating that no proceedings involving any expense was about to be proposed only formal matters and adding that if anything should present itself of more importance I should be informed before any decision was come to.

With this Declaration I was satisfied that the Board of Health would not by any proceedings involve me in responsibility without giving me an opportunity of giving an opinion on the matter. In this expectation I have been deceived, and must therefore take further precautions to guard myself in future".⁽²⁾

"An understanding", Ashley pointed out, "is a weak

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1. Ashley - Seymour, 10 January 1851.
2. Seymour - Ashley, 11 January 1851.

foundation on which to reprimand three Gentlemen who are associated with you in the Public Service".⁽¹⁾ The same day he wrote again to sweep away the last excuse for Seymour's querulous complaint. He forwarded copies of two letters, one dated the 10th August 1850 informing Seymour of Napier's engagement, the second dated 12th August, from Seymour himself, recording "no objection". Napier's engagement did not begin till five days afterwards. "Such is the haste and want of consideration with which you attack your Colleagues", Ashley concluded.⁽²⁾

Lord Seymour had retreated discomfited behind the skirts of the Chancellor of the Exchequer; but in Gwydyr House there was consternation and a feeling that the Board had reached a crisis in their career.⁽³⁾ It would have been serious enough if the incident had merely revealed that the manners of their President were bad, his memory feeble, and his attention to the business of the Board neither regular nor sympathetic. The correspondence --- taken in conjunction with the attitude which in this same month he adopted towards the Interments Act ---

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1. Ashley - Seymour, 14 January 1851.
2. Ashley - Seymour, 14 January 1851. There is no record of Seymour's reply to this. On 18 January Ashley told Chadwick "Lord Seymour's reply is a becoming one. I hope for peace", which may indicate that he sent a note of apology. The correspondence was laid before Carlisle, who returned it with a brief injunction to Chadwick, "Pray keep them all at peace as long as it is possible". (18 January 1851).
3. Ashley embodied the Board's position in a resolution (Minutes, 16 January 1851): "That while the Board consent to the proposition made by Lord Seymour, and agree that copies shall be sent to him of all their Minutes, and express, in addition, their desire to consult his convenience on all occasions, their conduct must not be construed as recognizing in a single member of the Board, and one too who is constantly absent, the right to reverse or control the proceedings of the other three. That if the President of the Board question in any way the acts of his colleagues, and express in consequence an intention to alter their decisions, he be requested to take his place at the Board, hear the evidence on which those decisions have been founded, and the explanations that can be offered thereupon".

showed in addition that he intended, in his own words, "to stop as much as he could" of the work of the sanitary reformers, and that in this policy of obstruction he was supported and incited by a powerful section of the Cabinet. Clearly he felt no loyalty either to the members or to the duties of the Board of Health. His allegiance was given wholeheartedly to the Lords of the Treasury, and he agreed with them that sanitary legislation meant feeing busybodies to meddle with things which were best left to Providence and private enterprise. To Ashley he was obliged to be outwardly polite; but Southwood Smith, Dr. Sutherland, Austin, all were treated to marks of his contempt; and Chadwick he loathed.

One point was clearly illustrated by the Seymour-Ashley correspondence --- the ambiguous nature of the President's status. Was he simply the first among his equals, or did he sit at the Board as a departmental chief with his subordinate advisers? By the Public Health Act he was on the same footing as the other three members of the Board; yet, as a Minister of the Crown, his shoulders carried added responsibility and his opinion had more weight. There was another aspect to the question. While the critics objected that the Board was independent and uncontrolled, Chadwick complained on the other hand that no Minister gave his full attention to the subject of public health. The Board shared with the Woods and Forests the time and labour of a minor Minister. Carlisle had attended carefully to his duties at Gwydyr House; with the result, since he could not be in two places at once, that he aroused dissatisfaction at the Woods and Forests. Even before his clash with Chadwick and Ashley, Seymour had declared, in conversation with Carlisle, that he would take little part in the Board's proceedings. It was obvious that, unlike his predecessor, he looked on the duties of the new department as of a very subordinate order indeed, and found the routine and atmosphere of the older office more congenial.

In consequence, the whole business of the Public Health Act, as Chadwick complained, was subjected to a double or even a threefold procedure. After being passed at the Board, it was submitted to a President, who never presided; and it was also transmitted at the same time to the Treasury, whose officials had no resources of information to guide them in making decisions on sanitary policy. In the older departments the subject matter was familiar to the public, and persons of general intelligence could undertake the duties without incurring any serious dangers of failure; but the Board's business was new, and hedged with technicalities. A mastery of the new principles, Chadwick maintained, together with attention at the Board to discussion of the details of their application, was really necessary to safe conclusions upon the Act.⁽¹⁾ If this proposition were accepted, the intrusion of the uninformed Seymour stood condemned for its arrogant impertinence. Moreover, Chadwick argued, the Public Health Act had directed the Treasury to make its decisions only upon the advice prepared by joint deliberation at a Board. It was not legally competent for them to substitute for the joint responsibility of the Board action upon the responsibility of a single member of it --- not even if he had taken part in the deliberations, and much less if he were absent and never heard of them.

In January 1851 Chadwick sent a long letter to Lord Carlisle on these "internal obstructions" to the Public Health Act.

"Unless some relief be given from this double stage of procedure, the increase of public dissatisfaction is certain and disgraceful failure imminent.

It is rather hard in itself: after having bestowed great labour in convincing the public, then the Government: then the

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1. "Administrative. Notes of Objections to the Course taken by Lord Seymour in respect to the Public Health Act", MS, n.d.

parliament, and getting a measure passed, and then to have the whole measure subjected to gentlemen, who say that all are wrong and that they are hostile to the principles of the measure.

Seeing the losses which delay occasions, and the necessity for prompt execution; conceding that they who have necessarily the best information from having prepared it, and who are the most deeply interested in its success, and who will be made responsible for its failure, are the last to be entrusted with it, and that some control should be exercised over it, then it may be submitted that it should not be subjected to two stages of appeal: to have to wait its turn for attention that its every step, unimportant or important should be subjected to have to wait its turn for the fragmentitious attention in departments already overburdened with business; where, if there be not positive hostility there is sure to be impatience of the detailed statements requisite to form a judgment on a new measure, new in its principles as well as in its details.

An old department may be left to take its course under the guidance of precedents; but surely if any branch of administration requires sustained and special attention for continued support against the obstructions which it must necessarily encounter; for aid in cases of checks, reverses and mistakes where there is no previous information for guidance, in (a) new and difficult position, surely it is this.

If the agents, as well as the measure are doubted, the more important it would seem to be that the attention to both should be undivided, constant and from the freedom of the means responsible; but it is due to the measure itself that the attention should be unprejudiced and fair and for support as well as checks.

The expense here to the public as well as the horrors against which the measure provides would repay the undivided attention of the Cabinet, at the least⁽¹⁾

He wrote again the following month:

"Our hopes for the measure you have promoted are that the constitution of the new Government may be such that you may be enabled to take part in it.

I venture to suggest the importance of Lord John Russell being informed of the impracticability of any person being enabled to attend properly to the business of two Boards, in the position of the Board of Health and that of the Woods and Forests with so much new work going on, not to speak of the serious personal causes for future inharmonious working in manifest adverse or uncongenial views.

The jars and interruptions to the measures required, under the Public Health Act, and the Metropolitan Interments Act, will be sooner or later felt in the hundred towns nearly, to which it will soon be applied, as well as in the hundred more to which it will quickly follow.

Should the double procedure be maintained, of an appeal from those who have laboured most and who know most and who are the most responsible to those who know the least who have neither time nor interest to obtain the requisite information, or to give attention to the particulars and bearings which it is requisite to master in order to arrive at a safe judgment? More than half the time since the passing of the Metropolitan Interments Act has been consumed and much public discontent engendered in re-opening the discussion of principles, settled in the Board's reports and remonstrating against conclusions at variance with the whole scope and intention of the measure as sanctioned by Parliament".⁽¹⁾

The Board's position was further weakened in May 1851 when Ashley succeeded to his father's title. It was true, as Chadwick pointed out, that in the less sustained debates of the upper House, his health would not have to bear the strain of late night sittings; and he would encounter less opposition from

sinister interests than in the Commons.⁽¹⁾ Nevertheless, the removal of Ashley left the Board with Seymour as their only official spokesman in the lower House --- a champion unreliable in his loyalty, and more inclined to turn his weapons against the cause he was defending.

Despite Lord John Russell's promise to Ashley --- which alone had persuaded him not to resign in March 1850 --- the Bill for metropolitan water supply was put in the hands of the Home Office. Not one member of the Board was consulted about the measure, except Lord Seymour, their fainéant President. The Government Bill, introduced on April 29th by the Home Secretary, Sir George Grey,⁽²⁾ proposed that the stock of the existing companies should be valued, and that they should then be consolidated and placed under the supervision of Her Majesty's Principal Secretary of State. The dividends of the consolidated company would be limited to 5 per cent., any excess income being applied by the Treasury to the reduction of rates. As a sanction to ensure that the proprietors complied with the provisions of the Act, the Home Secretary would be empowered to stop the dividends. Constant supply, regulations for filtration and purification, the provision of new sources, were left open questions to be decided at some indefinite future date by the Home Secretary.

Looking over the Bill with a discouraged eye, Chadwick must have felt that his Report might just as well have remained unwritten, Napier might have stayed in London, and the Board

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1. E.C. - Ashley, 9 June 1851. "From the conversations I have had with one or two persons, I am led to believe that your power of initiation will be by no means diminished to the extent which we might at first have apprehended from the change. At all events you will be in a better position to influence public opinion which influences the House of Commons"
2. Hansard, vol. 116, p. 340.

might have saved themselves the laborious inquiries and preparations of the previous fifteen months. Not only Chadwick himself, however, but the whole trend of sanitary investigation since 1842 was slighted by Grey's Bill. The combination of water supply and drainage under a single authority, which had been urged by three Commissions of Inquiry, found no mention at all. Some 700,000 Londoners were still to be left without any supply beyond what they could beg or steal or catch from a public stand cock. Above all, the companies would remain, --- their virtual monopoly, based on a tacit agreement, now converted into a legal monopoly; their proprietors guaranteed against competition and assured of a dividend of 5 per cent. in perpetuity on a fictitious capital of £4,800,000, a sum more than double the amount they had actually laid out.

The origin of the Government Bill was an open secret. Twelve months before Sir William Clay, chairman of the Southwark and Vauxhall Water Company, had addressed himself to Chadwick, declaring his hearty concurrence in the proposition that the water works should be consolidated and acquired by the public. The radical defect of the present system, he observed, was that the companies had no protection against the incursion of fresh competitors. Few years passed without new schemes being canvassed; the public were easily led astray by projectors who professed to be able to defeat the oppressive water monopoly; and the companies were thereby caused continual trouble, anxiety, and expense. For this reason, he believed, the proprietors would welcome a "water works annuity fund", created under the guarantee of Parliament, the amount of the fund to be determined by the actual net income of the companies. "These annuities to be always a first charge on the water rates and to be transferable at the Bank as other Government annuities. For such consideration the whole of their property and the works to be vested in the public". Both parties would gain by the change, the public by the economies of a unified administration, the companies by the increased value and

security of their shares. (1)

Clay's scheme was, in fact, an ingenious method of exchanging the precarious benefits of commercial freedom for the financial stability of a Government rentier. It sprang from an intelligent appreciation that the old order was passing, that --- as the columns of the "Times" unequivocally revealed --- the weight of public opinion was against the companies, and that if they continued to resist they would exacerbate that opinion and open the way for a settlement on the ruthless lines indicated by Chadwick. But Clay, who wrote heartily that if the companies and the Board of Health got together, they could come to an agreement in five minutes⁽²⁾, could have had no inkling of the depths of Chadwick's scorn for the claims of the water traders.⁽³⁾ Presently, finding Chadwick unresponsive, Sir William Clay diverted his stream of memoranda to the Home Office, where they were given a more sympathetic hearing.

In his acceptance of the principles of consolidation and public ownership, however, Clay --- who confessed, in his own words, to be "tired of presiding over Directors' meetings"⁽³⁾ --- was far from typical of his class. There were others who retained their faith in private enterprise, who would rather keep their independent existence than be merged either into a single company or a unified public service, and who were unwilling to exchange for a safe percentage the risks of the old order with its possibilities of greater profit. The majority of the directors were resolved to fight a delaying action as long as they could. A barrister friend of Chadwick's, engaged in auditing the accounts of the Chelsea Water company, found a good round sum set down as a subscription to the opposition to the Public Health Act.⁽⁴⁾ But when the Water Works Clauses

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1. "Memoranda on the supply of water to the metropolis. Sir W. Clay's paper", MS, n.d.
2. Sir W. Clay - E.C., 8 April 1850.
3. Sir W. Clay - E.C., 23 July 1850.
4. E.C. - F.O. Ward, 6 October 1849. In another note, probably to Delane (28 July 1851), he gives the figure as £200 or

(Continued on next page)

Act of 1847 for the first time applied the curb of a sanitary surveillance to the trade in water, they realised that it was no longer sufficient to subsidise journalists and lecturers to talk darkly of French Centralization and the invasion of property rights. They must make a show of accepting gracefully some part of the sanitary findings; and they calculated that if they did so, they might be enabled, by virtue of their strength in the Commons and the respect accorded to them by the Government as great nucleations of capital, to survive into the brave new world of Chadwick and the Health of Towns Association.

Each of the three solutions so far described --- the Government-appointed Commission urged by Chadwick, the statutory Company proposed by the Home Office Bill, the independent Companies under certain minimum restrictions desired by most of the proprietors --- had its spokesmen in the debates of 1851. There was a fourth party, however, more vocal than these, and commanding outside the House a wider measure of popular support. If Sir William Clay, and behind him the less accommodating Directors of the water companies, formed the right wing of the opposition to Chadwick's scheme, the left wing was represented by the advocates of parochial control. It was a confused, disunited, clamorous group, drawing its theoretical arguments from Toulmin Smith, its members diverse in their aims and in the quality of the motives which impelled them; a loose alliance of the metropolitan M.P.s and the Common Council, of Guardians, overseers and churchwardens, the projectors of a dozen water supply schemes, and a dubious tail of contractors and jobbers; some shouting for a municipality for the whole of London, others hoping to give the separate parishes of the capital the essential organs of urban government. The chief movers,

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(Continued from previous page) §240. "Now I apprehend that the Chelsea Water Works company did not take this step singly; where could this money, or such a purse as must have been made up from such a contribution, have been spent? and that too for the mere defence of an outpost against the principle of consolidation, for the Public Health Act expressly exempted the Metropolis".

Chadwick was convinced, were a set of engineers and promoters who felt that they had little or no chance with anything higher than a parish vestry.⁽¹⁾ There was Mr. Taberner, for example, the attorney's managing clerk who acted as spokesman for the Metropolitan Water Supply Association, and who was connected with a scheme for supplying each parish separately by artesian wells. He had the effrontery to call one day at Gwydyr House with an offer to direct the agitation according to the instructions of the Board, provided only that they reimbursed him for the time and money he had sacrificed. Similar overtures had been made to the Board by the solicitor of another scheme, which proposed to draw water from Henley at an outlay of two millions and appoint a salaried Board of Management costing £6,000 a year. "These overtures were made on the most vulgar conception of the motives and desire of the members of the General Board to obtain mere power and patronage; in which on the implied conditions that it was to be given to the promoters, unreserved support was promised, and hostility intimated if it were withheld".⁽²⁾ But the scheme which was acclaimed in vestry after vestry from June to September 1851, and which enlisted the support of Delane of the "Times", was a proposal by a metropolitan member, Mowatt, to vest the ownership and management of London's water supply in a representative body, comprising four members elected by the ratepayers for each of seventeen districts, together with four from the Common Council, and four nominated by the Government.

(3) In a series of lengthy letters and memoranda Chadwick combated the notion of creating a municipality for London, which

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1. "Water Supply: Central Establishment versus Parochial Establishments in the metropolis", MS, n.d.
2. MS fragment, n.d.
3. Mowatt attempted to introduce his Metropolitan Water Supply (Control of Representative Body) Bill on 24 June 1851 (Hansard, vol. 117, pp. 1140 - 1149), and again on 6 February 1852 (Hansard, vol. 119, pp. 220 - 231).

stood condemned by all his experience of the corruption and interest-begotten prejudices of local representative bodies. He described in broad outline this vast new local authority, with a jurisdiction over two and a quarter million people, disposing of millions of pounds of rates, and burdened with a complex of technical problems. Then, with a note of irony, he pointed to the products of vestry politics, and asked if men of this calibre could possibly grapple with the enormous task. "Is there any reasonable expectation or any evidence from Works done", he asked, "that out of the greater number, namely the smaller shopkeepers who form the bulk of the Ratepayers in the Metropolis a municipal body could be created of a higher degree of intelligence, and with a better disposition to execute works of improvement than the Corporation of the City of London?" --- a body whose ignorance, callousness, and susceptibility to sinister interests, was clearly shown by its defence of the cruelties and abominations of Smithfield Market, from which it raised £5,600 a year in fees, tolls, and dues. The peculiar difficulties of metropolitan government arose out of the very magnitude of the works required for drainage and water supply, involving an expenditure which Chadwick estimated at two millions. This sum, he maintained, might easily be doubled, and without obtaining the desired result, by errors of which ordinary representative bodies would be wholly unable to judge, but which they might be readily influenced to commit. Bodies shot through with local intrigues and pecuniary interests had an unsavoury reputation in the handling of public money. In the days when the Lord Chancellor inserted names in the Commissions of Sewers at the instance of the metropolitan Members, the Members were moved by electors, the electors by friends of contractors --- with the result that relatives of contractors were appointed as Commissioners, and were given the power of deciding upon contracts. Many of the active managers of the vestries were owners of house property, with interests opposed to sanitary improvements. Moreover, works of this nature could

not be conducted by intermittent Board meetings, nor even by the incidental attention of professional engineers and men of science. On the Metropolitan Commission of Sewers the popular representatives had swamped the scientific members, and had hindered progress by their jealousy when it was proposed to delegate powers to committees and paid officers.

Shifting his ground, and aiming his argument at the self-importance of national legislators, Chadwick urged that a unified municipality for the whole of London would be a formidable and independent power in the State, which would always be able, by the magnitude of its political influence, to procure the exemption of the capital from the operation of the laws passed by the legislature. In the most democratic constitutions there had always been a reluctance to create co-ordinate authorities within the seat of the central government, and it was, for example, a fundamental article of the American Union that no municipality should be set up in Columbia.⁽¹⁾

"The proposition, then, involves the constitution of a new representative body for two millions and a quarter of population, equal to one-eighth of the population of England and Wales, and more than the population of Scotland, having jurisdiction over £12,186,000 of assessed property, equivalent to one-eighth of the assessed property of Great Britain, one-seventh of the assessed taxes of Great Britain and Wales, nearly one-third more than the assessed property of all Scotland, nearly four times that of all Wales, and not less than the assessed property of fourteen English counties.

Now the mismanagement and jobbing proved to exist in the local administration of one rate --- the poor's rate --- where the sums administered amounted to thousands and tens of thousands of pounds, were such as to require, in the metropolitan as in other parochial districts, parliamentary intervention and the control of Government; yet it is now

claimed to entrust, without control the raising and management of rates, amounting to tens and hundreds of thousands, and even of millions of pounds, to persons who, individually or collectively, are entirely unaccustomed to the management of any such expenditure.

The direct outlay for the works of drainage and water supply now in question -..... is estimated at about two millions for new existing works, and the purchase and consolidation of works, from which an income of £430,030 per annum is derived, and for which claims for six millions of compensation are spoken of.

The future annual amount of water rates and sewer rates for the metropolis will, however reduced in amount, probably greatly exceed the expenditure on the Civil List.

It is to be borne in mind, however, that the question is not one of expenditure without representation and without responsibility. The administrative position stated in the Board's Report, and which they believe has been accepted by the public, is, that the interests of the metropolis, as the seat of Government, are national, and that the representation in respect to those interests should be national, and that the present responsibility of public administrative bodies to Parliament, as it now exists, with all defects, gives a more real protection, than is afforded by such a representative and administrative body as the Court of Common Council of the City of London, and one in every way more efficacious than could be afforded by the proposed new representative body, which must represent rated property twelve times greater than is represented by the Corporation; connected with fifteen times as many houses, and seventeen times as numerous a population.

If Parliament be asked to relinquish or to delegate any portion of that direct and special control which it has heretofore been accustomed to exercise through the Government in relation to questions affecting the seat of empire, it is

submitted that it can only be asked to do so, on the ground either that the subject matter is too little for it, and that all the other matters with which it is occupied are of larger public consideration or that it is too large, new, and difficult for it; in which case it must not be concealed that the proposition for the creation of a new local representative body for such a purpose implies that this body is to possess an administrative capacity for large works, beyond those of the Government and of Parliament itself.

The public at large certainly, and Parliament probably, are unprepared for the application of the proposed principle to the metropolis.

On the contrary it may be averred that they are prepared by continued practice for an opposite course, that is for the adoption of a special agency directly responsible to Parliament. It would be deemed an extraordinary course if a special Government Commission were issued to deal with any matter of local administration for a provincial town, or a city such as Manchester or York, yet for the Metropolis Government Commissions and Government intervention have been popularly demanded. There is a natural reluctance, not to say repugnance on the part of the public to undertake the execution of works of this description; and a desire to devolve the responsibility of their management upon whatsoever body might be got together for the purpose; arising probably from a feeling of the very special nature of such works, and of the scientific requirements requisite to judge of them. It is this speciality which creates the difficulty of getting proper persons to manage them, and which renders apparent at the same time the inconvenience and danger of placing them under the control of any popular representative assembly".⁽¹⁾

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1. "Memorandum as to the Constitution of the Administrative Machinery for the erection of New Public Works", printed, 24 January 1851. Ashley told Chadwick: "I fully concur with the Memorandum; and we must stand to it" (28 January 1851).

If the Home Secretary read these memoranda, he did not allow himself to be swayed by their arguments. Yet it was immediately evident that the Government's Bill stood no chance of success. Sir George Grey himself seemed to have no great confidence in the measure. The best plan, if it were only practicable, he declared, would be "to place the administration of water supply in the hands of a municipal corporation I (if it existed) or some body analogous to it (if it could be created)".

(1) Again, he confessed, "he did not doubt that if they were dealing with this subject as a new one, irrespectively of the machinery established for a long series of years --- irrespectively also of the habits which now existed, and of the aversion to the interference of Government in matters of daily and domestic concern --- the proposal made by the Board of Health might be the best in itself, and one which Parliament would do well to adopt". (2) Thus, by the Home Secretary's own admission, his solution was only a bad third, and he laid himself open to attack on the one hand by all those who were not so easily persuaded that a municipality was impracticable, and on the other by those who believed that water supply was properly a subject for Government interference. The Bill was enfiladed on all sides by a suspicious House, which felt that "there must be something in the background to cause this Bill to be brought forward contrary to the universally expressed opinion of the inhabitants of the metropolis". (3) Why should Londoners pay £400,000 or £450,000 a year when a completely new and improved supply could be obtained for £2,000,000, demanded Viscount Ebrington, whose speech owed much to Gwydyr House. (4) Sir Benjamin Hall, the member for Marylebone, declared that the Bill would boom the 3 per cent. water shares to £130; "he was informed, that no less than 70 Members of Parliament held shares in these companies, and it was not very likely, if they voted,

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1. Hansard, vol. 116, p. 340, 29 April 1851.

2. *ibid.*

3. *ibid.*, vol. 117, p. 478, 5 June 1851 (W. Williams).

4. *ibid.*, p. 506.

they would vote for any competition".⁽¹⁾ In his belief that the water companies were behind the Bill, however, Hall had misjudged their temper. They were far from willing, as we have seen, to forfeit their freedom of action to the extent contemplated by Sir William Clay, and the opinion of the majority of them was expressed by Sir John Johnstone, a former director of the New River Company, who "really did not see what there was to prevent the House from passing a Bill which would tie down each company to certain rules and regulations relative to supply, in a manner similar to that in which it was proposed to deal with the companies when amalgamated in one body".⁽²⁾

The Bill was given its Second Reading by 95 votes to 79; but only two had risen to speak in its favour, Sir George Grey himself, and Sir William Clay.⁽³⁾ On June 5th it was referred to a Select Committee, its defence being entrusted to three eminent counsel, while a phalanx of lawyers and engineers was arrayed against it by the Companies and the parochial party. The Board of Health were allowed no locus standi before the Committee; their inspectors were not called as witnesses; and the most Chadwick could do was to send copies of the Report on Water Supply to members of the Committee. "The reference of the whole water question of the Metropolis, to a committee of private and irresponsible members, is really a very fearful thing; and should not they be reminded of their duties to those who are unrepresented; the vast mass of two millions of the population, and of the poorest The private bill legislation is really in general the legislation of those who can pay for it. Where Hudson was unopposed he did as he liked, through these committees, with the legislature; and for railway purposes the committees, and through them Parliament itself,

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1. *ibid.*, vol. 117, p. 472.
2. *ibid.*, vol. 116, p. 322. "It was a matter of perfect notoriety that not only the New River Company, but other companies, and he believed he might say the majority of the companies, were strongly opposed to the measure" (Sir W. Clay, *ibid.*, vol. 117, p. 497).
3. *ibid.*, vol. 117, p. 511.

was the agency of the parliamentary agents There will be perhaps as much as three millions sterling in issue against the public for which there will be counsel. But the power of money in procuring the Evidence of scientific witnesses is the most disgusting feature to be anticipated. Before the railway committees, men of science were got to swear against a rival line which had a tunnel, that the air of the tunnel would be dangerous to human life. Before the private committee of the River Lea Trust Bill, an eminent Chemist, who had given a certificate in favour of soft water for Liverpool, was got to express his horror at the proposal to supply (people) with soft water, as one for poisoning them In favour of the Thames water as it now is, the Companies obtained the strong certificates of men of science who had denounced it before the Board of Health Could not the inhabitants of Church Lane, St. Giles, or of Jacob's Island be advised to come in forma pauperis, and ask the committee to assign counsel to them?"⁽¹⁾

Helplessly Chadwick looked on at the day to day clashes of the contending parties. He was cheered when Sir James Graham, who was strongly disposed against the Government Bill, showed signs also of being impressed by the constitutional inconveniences of Mowatt's parish parliament.⁽²⁾ But Graham had vagaries of his own, Chadwick noted disgustedly, --- "of supplying the North side from Watford and the South side from Farnham and erecting on each bank a distinct Municipality to whom it should be given This would be (like) saying an organisation in which there would be two hearts in one body".⁽³⁾ Under cross-examination the parochialists made revealing admissions. But what was the use, he asked Ward, of bringing out the fact that the agitation was conducted by a few interested individuals acting on small minorities in the

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1. E.C. - ? (probably Delane), 20 June 1851.
2. F.O. Ward - E.C., 19 June and 27 June 1851.
3. E.C. ~~Ward~~ - F.O. Ward, 3 July 1851.

parishes, when the papers printed none of the proceedings? "With very slight efforts, the narrow and sordid base of the parochial agitation is displayed in the Committee room, but not in the papers. The Times ceases to report the proceedings. Sir James Graham has an evident leaning, it is said, to the parochialists. He is suspected, of wishing to get into a Metropolitan seat himself as he has no chance of being returned for Ripon".⁽¹⁾

In one vestry after another from June to September 1851 Grey's Bill was condemned, and resolutions were passed in favour of parochial control. Seven hundred ratepayers in Southwark signed the requisition for a public meeting against the Bill, the largest requisition ever known in the borough.⁽²⁾ But, with the exception of the "Times", Chadwick observed, the trading interests seemed to have got very complete possession of the papers.⁽³⁾ The secretary of one water company told him that "they had got the Economist"⁽⁴⁾; but opposition was only to be expected from a journal which had looked upon the Public Health Act as an unjustifiable meddling with natural law. More perturbing was the defection of the "Chronicle" and the "Daily News", two newspapers which had hitherto been distinguished for their advocacy of sanitary measures. Napier called on the editor of the "Chronicle" to complain of the way his views had been misrepresented, and discovered that the writer of the offending articles was Venables, the counsel for the Kent Water Works before the Select Committee. Chadwick was especially pained by the scurrility of the "Daily News", which "has been introduced as a reformed newspaper and has been held up I believe by Bright and Cobden as an example of what a cheap Newspaper should be". Crowe, the editor, was most respectable, and "it is most likely to be the affair of some mere capitalist!"

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1. E.G. - F.O. Ward, 5 July 1851.
2. "Minutes of Evidence taken before the Select Committee on the Metropolitan Water Bill", 1851. XV. 1; Q. 4982, evidence of E. Collinson.
3. E.G. - F.O. Ward, 28 July 1851.
4. E.C. - Lord John Russell, n.d. (1851).

And so it ~~turned~~ turned out to be. "Smith the manager of the Daily News appears as the solicitor for the Hampstead water works and it is stated is largely interested in them".⁽¹⁾ The "Daily News", he recalled, had also been strongly opposed to the removal of Smithfield Market --- the articles being written by one of the counsel engaged on its behalf. Chadwick wrote a public letter (which apparently remained in draft) to protest against a practice which must be conducive to the corruption of the press, arguing that the retainer of a barrister who was an influential writer in a newspaper, perhaps even its proprietor or manager, was in effect the retainer of the newspaper itself. He thought also of mentioning to the Attorney General this new kind of Huggery, which led to the employment of barristers not for their legal qualifications but for their secret services as writers in a newspaper.

The "Times" alone seemed not to speak with the voice of the hired hack. "Whatever bias I have heard imputed to the Times I have never heard it accused of a pecuniary bias. Indeed, although I largely differed from the late Mr. Walter, I always said that his integrity against every sort of sinister influence appeared to me to be most remarkable".⁽²⁾ Shut out from the Select Committee on Grey's Water Bill, with the Government increasingly cold and unresponsive and the threatened interests ever more active and menacing, Chadwick made an attempt to secure the alliance of the most powerful leader of opinion in the London press, Delane of the "Times". In Printing House Square unfortunately the name of Chadwick carried with it the odour of the polluted Thames; and he was driven therefore to make use of a stalking horse, an eloquent and forceful journalist, F.O. Ward, who could put a more attractive colour on the sanitary case than could Chadwick with his desiccated English.⁽³⁾ Delane had made it plain that he found

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1. E.C. - F.O. Ward, 30 June 1851.
2. E.C. - ? (probably Delane), 28 July 1851.
3. Ward made Chadwick's acquaintance towards the end of 1849.

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more to recommend Chadwick's Government Board than Clay's statutory company; but in preference to either of these solutions he wanted to see London's water supply in the hands of a municipality. To mature the municipal institutions demanded by the "Times", argued Ward, would take a life-time. The interval would best be bridged by a terminable Commission, small, paid, and removable, going on from three years to three years as an ad interim administrative expedient until the municipal reconstruction of London had been carried out.⁽¹⁾ Ward addressed his letters to Chadwick, who forwarded them without comment to Delane; but the "Times" showed no sign of abandoning its campaign for the immediate establishment of representative government for London. Nor was Chadwick's assent ungrudging to the form in which Ward had put the Board's plan. He certainly did not concur with Ward's thesis that government by commission was no more than a temporary administrative device, to be replaced within a generation by a municipality. The feeling abroad in favour of representative control might be regretted, Ward urged on Chadwick, but it must be admitted, and their policy should be to modify it or mitigate it as best they could. All Chadwick's evidence that the parish agitators were interested men, and the vestry meetings but thinly attended, would not deter the "Times" and other journals from advocating ratepayers' control, which, "whether demanded by large meetings or small, is at all events the only principle that has in its favour any popular meetings at all".⁽²⁾ This, Chadwick must have felt, was giving hostages to the enemy. Ward's letters ascribed too much reason to the schemes of the opposition for a controversialist of Chadwick's rigid cast.

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1. F.O. Ward - E.C., 31 July 1851.
2. F.O. Ward - E.C., 14 July 1851.

(Continued from previous page) He had explained the Board's scheme in two articles in the "Quarterly Review": (1) September 1850, vol. LXXXVII, pp. 468 - 502, "Metropolitan Water Supply"; (2) March 1851, vol. LXXXVIII, pp. 435 - 492, "Sanitary Consolidation --- Centralization --- Local Self-Government".

After one or two of his letters had been held up by the censorious Chadwick, Ward ventured on a postscript of expostulation. It would weigh with Delane, he said, if all the letters were sent, "as this will show that independent views are taken and discussed, and that I am not a mere puppet reflecting your views and playing into your hands. (And, by the bye, let me mention that you are much weakened by the prevalence of a belief of this kind in many quarters --- it is thought that the Engineers Inspectors and those who serve you, give in many cases opinions modelled in conformity with yours --- which deprives the evidence, etc., of its cogency. Even I have been openly said to be "in Chadwick's pay!" It is worth while to adopt all reasonable means of mitigating the intensity of the dislike and opposition and mistrust occasioned by these unfounded ideas. Let my various letters, etc., go for what they are worth, for example --- and be assured that, so far as they are wrong, they will not prevail, while the candour of giving fair play to opinions not entirely identical with yours will be appreciated".

(1)

Chadwick's irritability increased as the Select Committee ambled on through ten inconclusive weeks. Ward wrote to encourage him: "Above all keep our soldiers in good cheer --- don't for heaven's sake talk about "disasters" in the camp. I for one have not the slightest misgivings --- and I promise you a bowl of Punch made with soft Gathering ground water delivered through my water-tap in Cork Street before two summers are over our heads".

(2)

The Committee closed the hearing of evidence at the beginning of August. No report was made. None was necessary. The case for consolidation was proved, but that was the one point on which agreement was reached by the unhappy Committee, bewildered by a confusion of issues --- hard water against soft, constant supply against intermittent, Watford chalk against

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1. F.O. Ward - E.C., 7 August 1851.
2. F.O. Ward - E.C., 30 July 1851.

Surrey sand, Mowatt against Clay --- and called upon to deal with a complexity of topics, administrative, chemical, and engineering, like a juggler with five balls in the air at once. "The impresssion was, of our own inspectors, that every party had broken down", Chadwick reported exultantly to Ward, "The Government or Sir William Clay's bill had broken down and the preamble will be declared not to be proved: the Vestry people have broken down and damaged themselves: the water companies so far as they went broke down and damaged themselves: for the money they spent, they had I am told a most pitiful result: no such knowledge as ours being applied to meet the case or direct the cross examinations to produce it".⁽¹⁾

Russell had already announced that the Government did not intend to legislate on water supply during the present session. The water question had been put off for another year, as it was clear it must be the moment Grey introduced his ill-concocted Bill. The Treasury, which had refused to grant the Board £500 for a survey of the new sources, had spent £5,000 on the rejected measure.⁽²⁾

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1. E.C. - F.O. Ward, 2 August 1851.
2. E.C. - Lord John Russell, n.d.

CHAPTER 14.THE INSPECTORS AT WORK.

The jealousy of the localities and the caution of the legislature had circumscribed the powers of the General Board of Health by the narrowest of boundaries. Their Inspectors could be summoned by a petition signed by one-tenth of the ratepayers; alternatively, the Board could institute an inquiry into the sanitary condition of any place with a death rate over 23 in the thousand, whether the inhabitants welcomed the investigation or not. But that was the sum total of what may be termed their initiatory or aggressive powers; and, as a rule of practice, they laid it down at the beginning that they would not conduct any local inquiry unless they were assured of substantial local co-operation. They proceeded upon the authority of a return from the Registrar General only after they had received solid evidence in the shape of some form of local representation, a resolution of the Town Council or a ratepayers' meeting, that their Inspectors would be kindly received by influential elements in the district. Sometimes they over-estimated the strength of the feeling in their favour; sometimes the swing of local politics put their friends out and their enemies in; sometimes a district which had at first seemed receptive was swept into opposition by the speeches and handbills of Water Company agents, Local Act attorneys, or the Anti-Centralisation League. This was only to be expected. The Inspectors' probe was bound at times to press on a tender spot. But the Board took up no intransigent attitude towards the localities, and they withdrew with admirable caution when the opposition seemed preponderant, regretting privately at the same time that they had no power to clean away such well defended dirt. Resentment was aroused by the novelty not the extent of their

control, which was of course far less than that of a modern department. The bit was galling because it was new, not because it was excessively sharp.

Nothing annoyed Chadwick more than the charge that the Board of Health forced its way into a place and rode roughshod over the feelings and interests of its inhabitants. He would point in answer to the securities he had so carefully provided for sounding local opinion, consulting the wishes of the population, and preparing their minds for the responsibilities and benefits of the Public Health Act. A local examination was conducted by a specially qualified engineer, escorted by leading citizens of the district; a public interrogation of witnesses was held before the ratepayers; the Inspector explained the objects aimed at and the methods by which it was intended to achieve them; a report on the present state of the town was published locally, together with a description of the new public works proposed, and an estimate of their probable expense; and finally, in London, a responsible Public Board sat to review the contemplated measures, and to serve as a court of appeal to private parties. What more painless method could be devised of grafting the functions and powers of the Public Health Act on to the older machinery of local government?

How admirably on occasion the method worked is illustrated by an entertaining account by Robert Rawlinson.

"On my arrival in Hexham, I found the town in a state of ferment as to the inquiry, the bell-man was perambulating the streets summoning the ratepayers to a meeting to oppose the inquiry. This was repeated during the evening, one of the meetings being for the evening, the other for the morning. Several of the promoters called in upon me during the evening, evidently fearing the morning's meeting. I explained the Act to them, as the most absurd statements had been published and were believed. I learned that the leader of the opponents was a Local Solicitor. The promoters were most anxious to learn

what course I should take, as they ~~were~~ feared to come forward and support the measure in public. That is they would attend the meeting but wished to avoid taking an active part in the proceedings. I told them this was exactly the course I desired they should take --- namely --- let the opposition have all the talking to themselves, and so leave them to me as I was quite sure out of their own evidence I could convict, if not convince them. The inquiry had to be adjourned to a large room as there was a full and rather formidable attendance. The day being wet many workmen were there. I commenced the inquiry by a short statement of the proceedings which had brought me down --- and then glanced rapidly over the powers contained in the Act --- taking up one by one the objections which I had been informed the promoters of the opposition had made. I then requested any persons having evidence to offer either for or against to come forward and tender it. The opponents entered most resolutely into the arena, declaring that Hexham was well supplied with water; and was, in all other respects, a perfect town. I inquired for the return of the mortality, and found that, for the last seven years, it was actually some 29% in the thousand, but with 'cooked' returns it was 24% in the thousand. I then called the Medical Officers and the Relieving Officers and soon got amongst causes of fever, small-pox, and excessive money relief. I then traced disease to crowded room tenements, undrained streets, lanes, courts and crowded yards, foul middens, privies, and cesspools. The water I found was deficient in quantity and most objectionable in quality, dead dogs having to be lifted out of the reservoir. And though the opposition fought stoutly they were obliged publicly to acknowledge that improvement was needed --- they, however, dreaded the General Board, and the Expense. I then explained the constitution of the Board and stated that their powers would be used to instruct, protect and to check extravagant expenditure. By this time the eagerness of the opponents had

somewhat subsided, the body of the meeting had come partially round, and so I entered into an examination of the promoters who came willingly forward. At the termination of the inquiry several of the opponents came forward and stated that I had removed their objections and they wished the Act could be applied immediately.

Today I have inspected the town --- and have found it as bad as any place I ever saw. I have had at least twenty gentlemen with me all day although it has rained most of the time. The town is old, and is in as bad a condition as Whitehaven, and I don't know that I can say anything worse of it. I am staying at the best Hotel in the town, but there is no watercloset, only a filthy privy at some distance, --- the way to it being past the kitchen. I have just been out in the dark and rain blundering and found some one in the place.

I have inspected the sources of the present water supply, and find that the water is taken from an open brook, filthy and muddy in wet weather, and filthy and bright in dry weather. In the same districts I have found; or rather, been shewn, springs --- pure and soft --- and at a sufficient elevation, to give 150 foot pressure in the town --- and in abundance for the whole population. The existing springs will be added to if requisite by deep drainage. Most complete water works might be formed at a cheap cost. And the town may be sewered and drained for nothing, as a Nursery Man adjoining has stated that he will give £100 a year for the refuse, if it is all collected by drains. There are many acres of market gardens and nursery grounds within reach of the outlet sewer and more than £100 a year will be obtained.

Since the inspection today I have had parties from both sides with me, the opponents trying to explain away their opposition; the promoters to furnish information; and, at times, I have had nine or ten gentlemen at once, belonging to both

parties. The leader of the opposition has made me a present of some Anglo-Saxon coins --- called Stycus which were found in Hexham Church Yard"(1)

The deft and tactful handling of a truculent opposition, leaving no scars of controversy, is an example of the sanitary diplomatist at his best. But not all inquiries were thus concluded by a peace offering from the leader of the critics. When T.W. Rammell invited the Corporation of Chipping Wycombe to accompany him on a tour of inspection, they refused point blank, "they having determined to give all attempts to saddle the town with the Act the bitterest opposition in their power".(2) Pressure was not infrequently brought to bear on witnesses to prevent inconvenient revelations. During the inquiry at High Wycombe, for example, the vicar produced a letter from one of his parishioners:

"Sir --- If you send for me when you hare redy in the town hall, i will give a true statement of the newcence of the pigsties against my house belonging to Mr. Hunt. Mr. g. Hunt told Mr. J. Hunt that i told you about the sties. Mr. Jo Hunt asked Mr. g. Hunt if I hoed him any money, if I did he would demand it, and if i dint pay it he would have a warrant of distress and take my goods, that was the reson that i was afraid to say the complaint, the Lord delievered daniel from the Lion paw, and that same god is my god and he will deliever me from my henemys.

i am ^{your}~~you~~ obdient servent,

John Pippin.

the rev, Mr. Paddon, Wickham, Bucks."(3)

Many in the localities looked with suspicion on the tables of mortality rates concocted in a distant London office, and called on the evidence of "popular repute" or the "oldest living resident" to prove the healthiness of the district.

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1. R. Rawlinson - E.C., 30 September 1852.
2. Report on Chipping Wycombe, p. 8. (March 1850).
3. Report on High Wycombe, p. 11.

At Merthyr Tydfil Rammell found a "very general indisposition" to the application of the Act --- and, in particular, from the iron miners. They argued that the high rate of mortality was caused by their dangerous work underground and by lack of food. "What they wanted was more meat", not sanitary regulations.⁽¹⁾ One miner put the point forcibly: "My reason is, that people have not enough to buy food, and have nothing to spare for water. The wives of many being barefoot, there is no expense of shoe-leather".⁽²⁾ Rammell in reply demonstrated that, even if full credit were given to pit accidents, 27,6 deaths out of each thousand were still due to natural causes. The workers eventually agreed to send eight delegates, four against and four in favour of the Act, from each of five districts, to accompany the Inspector on his round of inspection, and they broke up with an evident disposition to treat the matter on its merits.

As we turn the pages of the Inspectors' reports, we become familiar with a local drama, repeated in a hundred places, played sometimes as a comedy and sometimes as a tragedy, with innumerable variations of plot and circumstance, but marked by a few constantly recurring themes. We come to recognise the characters --- the landlords, who "would do that their neighbours did" and refused to be "at the expense of making a drain"⁽³⁾; the farmer, frankly admitting "I prefer cesspools to drains, and I should like to stop drainage altogether"⁽⁴⁾; the Improvement Commissioners, defending their inactivity in the

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1. Report on Merthyr Tydfil, p. 4 (1850).
2. *ibid.*, p. 47. Similarly the Highway Boards of Hanley and Shelton maintained that "considering the debilitating occupations of many branches in the pottery trade, these Townships, generally, are not unhealthy. Neither do the intelligent part of the medical profession think them so. Those of the greatest practice, consequently of the greatest experience, are bold enough to say, that the mortality will be much the same, whatever steps may be taken with respect to sewerage". (Report on Stoke-upon-Trent, April 1850, pp. 45 - 6).
3. Report on Wakefield, pp. 11 - 12 (W. Ranger, December 1851).
4. Report on Bangor, p. 5 (T.W. Rammell, September 1852).

past with the argument, "Powers are apt to go to sleep unless attention is called to them sometimes; we don't claim perfection"⁽¹⁾; the local solicitor scornfully rejecting the Inspector's statistics with the comment "the excess is but six-tenths, which is but half a man"⁽²⁾; the Justice of the Peace, well-intentioned but ignorant of the provisions of the Public Health Act, demanding suspiciously, "Have not the Board of Health power to order what they please to be done? and can the inhabitants control the expenditure?"⁽³⁾. Against this mass of interest, ignorance, and apathy, the Inspector's strongest weapon was a general perambulation of the town. As he made his way through the courts and back streets, accompanied by a train of clergy, doctors, solicitors, Guardians, and Commissioners, the inhabitants crowded out of their wretched dwellings, crying out their complaints, on the supposition that he was armed with power to give them immediate relief. One fact which these ~~gpm~~ surveys revealed was that not only the higher but most of the middle classes knew very little of the conditions in which the lower classes lived. The delegates of respectability often expressed astonishment and horror at what they saw, declaring that it was utterly strange to them and beyond their belief if they had not seen it with their own eyes. The plea of ignorance could no longer be maintained, however, after they had watched the Inspector put his questions and take down his notes in their uncomfortable presence. Here, for example, are the minutes made on such a tour by William Lee at Dudley:

"Patchett's-buildings. --- All Irish. A court about eight feet wide, with only surface drainage. No ventilation. A foul well used for cleaning the yard; most filthy privies are placed at the top, and as fast as the pots are emptied into the open receptacle, the fluid runs down the yard; the seats and passage covered with ordure, and the privies

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1. Report on Chipping Wycombe, p. 40.
2. *ibid.*, p. 6.
3. Report on King's Lynn, p. 31 (W. Lee, September 1852).

cannot be used. One case of cholera. The houses have water; the landlord would not lay it to them, but the water company did. One of the tenants says, "He will not put a brick in, but if he is asked to do anything at the property, d--- and b--- us, and is often drunk". Rent for house and chamber, 2/4d. The whole of the medical evidence shows these yards to be among the worst localities of disease in the town.

Mr. Richard Fellows' property, and Thomas Williams, four houses. --- Only one privy, without door, roof, or seat, and part of the wall down. The tenant, Richard Roberts' wife, says "I cannot get him to even come and look at it. We pay 2/6d. per week. The back door is nearly down, and I am sure I expect it falling on the children. My husband is lame, or it would not be as it is. We cannot go into the privy. We have no water but the cellar water, which we use for slopping; we cannot get any other without either buying or stealing. The landlords ought to lay water on for all the houses".

William Cox's property. --- Nine houses; no water; have to go half a mile for water. One of them says, "We may as well talk to that", stamping her foot on one of the bricks of the footpath, "as talk to the landlord about having any water. He looks after the rent".

Badger-square. --- Twenty-five houses. Very shocking privies. No water but from a draw-well. One of the tenants, who lent a rope and a bucket, said, "We have to steal water or do anything we can, and to drink the well water. There are dogs and cats in it, and sometimes we wind a cat up and cannot stomach it"

The New Dock. --- A street which is a perfect quagmire, even at this dry season, for want of pavement and drainage. The property is almost new, and yet everything connected with health is in the most wretched state.

Birmingham-street, Vanes's-yard. --- The Inspector

of Nuisances caused the owner of some property below this to erect a privy for some houses that were without; but the tenants pulled it down, because they said they should have all the people in the district coming to it if they did not. He then erected three others, and had locks put on, and they now stand.

Bond-street, John Owen's property. --- I asked, "Where do you get water?" Answer --- "We steal it"

All the neighbours about this part of the town were calling my attention to the ills connected with drainage, privies, want of good water, and stench, etc., to such an extent, that I was compelled to refuse to take them down in my minutes, because I should have had to mention almost every house, and could never have used my remarks".⁽¹⁾

In town after town, against the advocates of *laissez faire* and local self-government, the Inspectors argued Chadwick's thesis that in matters of public health an impartial central authority must intervene to adjust the balance between the powerless masses and those of their betters who wanted privilege without responsibility. "Is sanitary reform a thing to be accepted or rejected at will by individuals, or even by communities?", asked one of them. "Is it a subject for a show of hands, when the persons whose lives depend on the decision are mostly either ignorant, misled, or coerced? Can it be left to the ordinary principles of supply and demand? Is there any parallelism between those public arrangements that are necessary to existence, and private dealings with the butcher or baker, --- although these may be equally necessary?"⁽²⁾

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1. Report on Dudley, App. A, Minutes of Inspection, pp. 77 - 85 (W. Lee, 29 December 1851).
 2. W. Lee, "Summary of Experience on Disease", 1851.
- Lee, after the tour of Dudley described above, concludes: "It is an axiom that property has its duties and its responsibilities, as well as its privileges and influence. The above are illustrations of the manner in which those duties are too frequently performed; they are also illustrations of the helplessness of a large proportion of the poorer classes in towns, and of the working of the

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All the anxiety of decisions which they believed involved life and death to thousands crowded upon the Board as the time came round each session for the preparation of the Bills in which their Provisional Orders were confirmed by the legislature. Whitstable and Newton Abbott must be struck out of the schedule because strong local opposition had developed.⁽¹⁾ A deputation from the Leamington Commissioners asked that the application should be postponed for a session. Did they represent the real wishes of the ratepayers? wondered the Board; and their doubt was confirmed a few days later when they were informed that the resolution of protest had been passed at a vestry meeting not open to the public.⁽²⁾ Ryde took a poll on the Act, and two-thirds of the ratepayers voted against its application; a fortnight later the medical men of the town sent a deputation in favour of the Act, but the Board reluctantly refused to move against the majority of the inhabitants.⁽³⁾ The Member for Brighton secured the omission of the town from the schedule, and Chadwick drafted an ironic speech, "Thanks of Sir William Pechell for withdrawing the Public Health Act from Brighton" --- "I thank you for having struck out Brighton from the provisions for the promotion of cleanliness. I am deeply impressed with the obligations due to you for having stayed a measure for the saving of some hundreds of people from the ravages of typhus and other preventible disease. As a friend of the population I am delighted that you have refused measures for the introduction of water into the houses of the poorest classes".⁽⁴⁾

Deputations, friendly and hostile, waited upon the

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(Continued from previous page) voluntary principle in a matter no less momentous in its consequences than life and death". (Report on Dudley, p. 53).

1. Minutes, 21 June, 27 July 1850.
2. *ibid.*, 12 and 27 July 1850.
3. *ibid.*, 26 March, 12 April 1853.
4. "The Thanks of Sir William Pechell for withdrawing the Public Health Act from Brighton and notes on his attack", MS, n.d.

Board, and petitions and counter-petitions poured into Gwydyr House, from administrative bodies whose powers would pass to the Local Boards, from ratepayers who dreaded the expense of water and drainage schemes, from landlords who disliked regulation and office-holders who feared disturbance. Attempts were made to discredit the testimony of the Inspectors. A letter from the Commander of the Royal Engineers at Portsmouth attacked the reports of Grainger and Rawlinson as a "tissue of wilful misrepresentation", and declared they must have been imposed upon by interested persons.⁽¹⁾ Babbage's report on Bromyard was stated to be full of absurdities and lies; he had remarked, for example, that three funerals had taken place there on one day --- but not that they were of three old women, aged 72, 92, and 95 respectively.⁽²⁾

From Alfreton came a typical petition, signed by the Mayor and the largest ratepayers, and maintaining that the town had, "to the knowledge of the oldest inhabitant, been notoriously remarkable for the health and longevity of the inhabitants". It went on to plead ^{the case of} ~~that~~ "the owners of lands and premises, and the greater occupiers and ratepayers within the town, compared with the inhabitants generally, who are chiefly employed in the manufacture of stockings and in coal-mining and agricultural labour, and unable to bear additional imposts, whereby the liability of such owners and occupiers, in case of the said Act of 1848 being adopted, would greatly enhance and become burdensome to them, and induce many to remove from the town to avoid such additional imposts; whereby the property within the town would be greatly reduced in value". The "gigantic machinery" and "numerous officers" were quite unnecessary, as the parts complained of had now been improved under the Nuisances Act. Those who signed the original petition had been deluded by the belief that the Act would

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1. Minutes, 21 August 1849.
2. Hansard, vol. 124, p. 1351, 9 March 1853 (Col. Pechell).

involve an expense of no more than twopence a week.⁽¹⁾

At the subsequent inquiry at Alferton a local clergyman informed the Inspector that he had been asked to "direct" his tenants to sign the counter-petition.⁽²⁾ The Board had abundant reason to believe that agitations against the Public Health Act in other places were only too often moulded by pressure from landlords or other interested parties; and that where such tactics failed, counter-petitions were cooked up and signed with fictitious or forged names. The clash of local jealousies and interests may be illustrated by the case of Macclesfield, from which the Board received four memorials, one in favour originating from the Mayor and Corporation, three opposing the Act, promoted by the Police Commissioners of the town and the Highway Boards of Sutton and Hurdsfield. The memorial from Hurdsfield declared that "the petition of one-tenth of the ratepayers, forming a very small portion of the whole inhabitants, had, in the case of Macclesfield, no reference whatever in its origin or promotion to the improvement of the sanitary condition of the town, but for the avowed purpose of enforcing the yielding up by all the other public bodies in the borough of their functions and powers to the one body with whom that petition originated and by whom it was promoted".⁽³⁾ A letter from the Town Clerk of Macclesfield later informed the Board that out of the 4,132 signatures appended to the counter-petitions, only 1,421 could be identified as those of ratepayers; "that several of the signatures are not those of the persons they purport to be; that a great number of the names are in the same handwriting; and that some appear fictitious; that there are also frequent repetitions of the same name, of persons not resident at all, and after the signature of the father in several cases, those of the children are appended".⁽⁴⁾ The Inspectors were later

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1. Report on Further Inquiry at Alferton, p. 5 (December 1850).
2. *ibid.*, p. 10.
3. Report on Macclesfield, p. 8 (Rawlinson, February 1851).
4. Minutes, 9 June 1851.

instructed to verify the genuineness of signatures by personal visits or by reference to the rate books⁽¹⁾; and ultimately, in May 1853, the Board decided to request that in future the Clerk to the Guardians should attach to each petition a certificate showing the number of ratepayers and attesting the qualifications of those who had signed.⁽²⁾

From Great Yarmouth came an octavo pamphlet of 58 pages, imputing that the evidence before the Inspector had been mutilated, falsified, and fabricated, advocating an alternative scheme of sewerage which would leave nearly 25,000 out of the 28,000 houses undrained, and propounding reasons why the existing supply of hard impure water was superior to the suggested provision from a soft and unpolluted source. The application of the Act, "firstly, would destroy a large proportion of the value of real property; secondly, ruin whole families who are living upon the surplus income of mortgaged property; thirdly, drive from the town those owners of shipping property who, having no interest in the real property of the town, will be induced to reside where local taxation will be less oppressive; fourthly, by which means hundreds of poor will be thrown out of employ, and become chargeable upon the parochial rates; and fifthly, largely contribute towards the decay of a town once among the most flourishing seaports in the empire of Great Britain".⁽³⁾ The objections from Great Yarmouth were supported by Joseph Hume; but the case against the town was so overwhelming that the Board felt strong enough to defy the opposition.⁽⁴⁾

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1. Minutes, 24 October 1851.
2. *ibid.*, 26 May 1853.
3. Report on Memorial from Great Yarmouth, p. 27 (W. Lee, October 1850).
4. Minutes, 15 April 1851. According to a letter from the Inspector, William Lee, to Chadwick, 4 August 1851, the death rate was 24 in the thousand. There was nearly half an ounce of saline and mineral ~~water~~ matter to every gallon of the town water supply. With the exception of the barracks, all the houses recently built had no means of drainage whatsoever; and all their privies and middens

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From the hamlet of East Stockwith came a memorial against being included within the district assigned to the Gainsborough Local Board:

"Worthy Sir,

We the undersigned Being Princeable Rate Payers of the hamlett of East Stockwith do feel our Selves agrieved By your Saniture measure concerning the Plans Laid down of us haveing any thing to Do with gainsboro waterworks or any Part of the Dreaniage it Doth Require as we have a good Dreaniage of our own about 6 feet fole in 20 chean, wich falls Down into the Carr wich that Dreaniage is Verry good and hath Been greatly Improved at a Serious Expence by the Erection of a large Steam Engene at Ravensfleet which will Continually Bring Large Rates upon us for the Management and Repairs of the Same we have good Dreaniage and three Trustees Regularly Chosen to Enspect any Defisunces that may occur in our Dreans will not Lett any Stagnated water become a Nuoisance to hinger any thing and as to haveing any more Expence with New works it will be a burden more than we Can Bear as our Rates his Exceedingly heavy. Now we Sincerely Beg of you to withdraw any Such

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(Continued from previous page) opened into dead wells, the infiltration from which daily poisoned the water used by the nearby Military Lunatic Asylum. The powers of local improvement were in the hands of a body of 113 Commissioners appointed under an Act passed forty years before and altogether unsuited to the existing requirements of the borough. "A flagrant instance of taxation without representation", concluded Lee, "... a majority of the Commissioners are self-elected for life; ... for a great number of years, until within the last few months, they had never published any accounts; ... the Abstracts now published, with the Public Health Act impending, are so mystified that their Lordships (the Select Committee of the Lords investigating the petition) could not understand them". The Select Committee had decided that the mortality was so excessive that the General Board would have been justified in applying the Act without any petition from the locality. One witness admitted that in order to obtain signatures against the Act he had told ratepayers that they would be compelled to pay 7/6d. to 10/- in the pound as rates.

measure from us as it will be of No use what Ever to our Place with gratitude we are you Obt. Servants.

(Signed) Robert Wildboar (and 50 others)"(1)

The indifference of the fainéant Presidents, who shared none of the enthusiasm of the Board and had no desire to share

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1. Report on Further Inquiry at Gainsborough, p. 6 (May 1851). The ratepayers of East Stockwith were later assured that inclusion under the Gainsborough Local Board would not mean being burdened with the cost of the works, unless they received benefit from them.

A few more examples will serve to show the kind of objections raised in the localities and the Board's attitude towards them.

The Commissioners of Sewers, Paving, Cleansing, and Lighting of Bristol, protesting that the Act was not needed in the town, declared that the annual mortality was not 23 in the thousand. The Board replied that their action had been taken on a return from the Registrar General, which in fact showed a death rate of 26 per thousand. No representation had been received from any public meeting that a majority of the ratepayers opposed the Act; "all the representations received by the Board against the application of the Act are from bodies whom it will displace". The Board concluded firmly: "there is great necessity in Bristol as elsewhere, for consolidating Municipal powers in the hands of the Municipal body, and for thus escaping from the delay, expense, and inefficiency inseparable from the existence within the same city of several concurrent jurisdictions, no less than the evil of dividing among various bodies, duties, which to be effectually and economically discharged, ought to be in the hands of one". (Minutes, 15 May, 13 June 1851).

After hearing a deputation which included John Bright, the Board decided to take no further proceedings on the petition from Bacup. (Minutes, 7 February 1850).

A deputation from High Wycombe to protest against a preliminary inquiry being conducted there included the Member, Martin Tucker Smith, and the Vestry Clerk. But a week later another deputation, including the Mayor and the Vicar, asked for the intervention of the Board. They decided to hold an inquiry. (Minutes, 18 and 25 April, 1849)

A Salisbury protest declared that the drainage recently laid down was the best a town could have. The Local Board would have only nominal self-government as it would be guided by the general principles of the Central Board. There was the expense of five paid officers to consider. And altogether the application of the Act would involve an outlay of £40,000. (Report on Salisbury, p. 115; T.W. Rammell, October 1851).

any of its labours, was another cause for anxiety. In June 1852, to take a notable instance, Lord John Manners told the Board that he feared he would not be able to undertake the introduction of a second Confirming Bill that session. No reason was given for this decision, which would have thrown away months of preparatory labour in investigation and the conciliation of local sentiment. The Board protested strongly. "The powers of the Act are urgently required in the case of the towns included in this Schedule, especially Woolwich, Wisbech, and Salisbury. In Woolwich, the mortality in the lower parts of the town amounts to 27.3 in the 1000, though in Woolwich Common it does not exceed the septennial average of 14 in the 1000, while in some particular parts of the town it rises to 38 and even 40 in the 1000. In Wisbech the septennial average is 30 in the 1000 and in Salisbury a fraction higher. In all these cases the Board feel that a very serious responsibility will weigh upon them if any delay that can properly be avoided takes place in applying the Act, as they conscientiously believe that such delay may occasion the loss of many lives".⁽¹⁾ Lord John then consented to introduce the Bill, "on the understanding that it is the deliberate opinion of the Board that no delay or discussion is likely to arise in Parliament in respect of such Bill".⁽²⁾ How the Board could be held answerable for the Bill's smooth passage through Parliament he did not make clear.

By February 1850 the Board had received applications from 192 places, with a total population of 1,969,915, ranging from Birmingham with its 182,922 to the Northamptonshire parish of Little Bowden with 439. The Public Health Act had then been introduced into 32 places.⁽³⁾ After the initial impetus of

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1. Minutes, 9 June 1852.
2. *ibid.*
3. "Return of the Number, Names, and Population, of Towns and Districts which have asked for Inspection under the Public Health Act, and of those which have Embraced and are placed under its Provisions", 6 March 1850 (Commons). P.P. 1850 (110), xxxiii. 591.

the first eighteen months, however, the number of new applications slackened off to an average of just over twenty a year. In July 1853 a return of the Board showed that petitions had reached them from 255 places, 164 of which had been brought under the Act, 86 by Provisional Orders and 78 by Order in Council.⁽¹⁾ The power to act on the authority of a return from the Registrar General had been exercised with the greatest caution. In the first five years the Board directed inquiries into only 28 places from which they had not received a petition signed by at least one-tenth of the inhabitant ratepayers; and even in these places, as we have seen, they moved only after they had seen good evidence in the shape of influential local representations that their Inspector would be given strong support.⁽²⁾ In one place only had they instituted an inquiry without any form of local application. A petition had been received from the parish of Walsoken, a suburb of Wisbech, and the Inspector, William Lee, had expressed the opinion that no effective sanitary works could be constructed without taking in the rest of the town. His report had subsequently gained the unanimous approval of the inhabitants of Wisbech, the death rate of which was 30 per thousand. In other places, Alnwick, for example, the Board had reluctantly decided not to incorporate within the jurisdiction of the Local Board certain districts where hostility to the Act was manifest, although their inclusion would have rounded off the natural area for drainage.⁽³⁾ The drafting of a sanitary scheme was determined by physical facts, the line of a water shed and the delimitation of a natural drainage area. But across the physical face of

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1. "Return of all places which have petitioned the General Board of Health for the application of the Public Health Act, etc." p. 2. (Commons, Sir George Pechell, 1 July 1853). P.P. 1852 - 53, xcvi. 1.
2. *ibid.*, p. 15.
3. "As the expression of opinion against the suggested constitution of the Alnwick district seems wide and general, the suggestion of Mr. Rawlinson will not be acted upon". (Minutes, 26 April 1850).

the countryside, its rivers and hills and geological strata, earlier generations had traced the lines of their civil administration, cutting it into units which frequently bore little relation to the area within which the objects of the Public Health Act could be most economically and conveniently accomplished. Chadwick, much as he would no doubt have liked the task, could not sit down like Napoleon in council and redraw the administrative map of Great Britain. Some redrawing there must be: but the Inspectors were instructed to go beyond the existing civil boundaries only where there was a physical necessity for doing so, or where there would be manifest advantage to the occupiers and owners of the district included in the new jurisdiction.⁽¹⁾ Commanding as they did a staff of Inspectors which was never more than seven in number, and for most of the period was only five, they had no strength to spare for protracted battles in the localities; and, as Chadwick confessed, "hitherto the number of bad places competing for the services of our very small staff has been so considerable, that we have usually only been moved in favour of any particular place by a strong representation."⁽²⁾

The critics in Parliament and the press, who tried to make out that the Board's intervention was everywhere resented and that sanitary works meant enormous expense for a doubtful benefit, were amply rebutted by the evidence. The average cost of applying the Public Health Act by Provisional Order was little more than £136, by Order in Council still less, only £38. To obtain a grant of similar powers by Local, Improvement, or Waterworks Acts would involve legal charges amounting to over £1,600; the average expense of even an unopposed Improvement Act was £600. The comparative costs of

1. "Let our Inspectors understand, that things being tolerably equal, it is an object to keep existing divisions"
(Carlisle - E.C., 11 November 1849).
2. E.C. - Edwin Eddison, 9 October 1852.

the two procedures were strikingly illustrated in the case of Reading, where a Local Act was promoted for the sanitary improvement of the town. A preliminary inquiry by the Department of Woods and Forests cost £900; and the expenses ran up to a total of £8,000 --- yet in the end the Bill was defeated by the opposition of the local Water Company. Subsequently a petition was sent to the Board of Health; their Inspector conducted his inquiry and survey for £140/19/3; and the works for which £60,000 had been estimated under the unsuccessful Local Act were executed for £25,000.⁽¹⁾

In most places the Inspector of the General Board was the first to give serious and informed attention to the preparation of a comprehensive scheme for supplying the inhabitants with water and relieving them of their refuse. He was ordered, in the set of instructions drawn up by Chadwick, to consider the three-fold aspect of the problem: how water, pure and wholesome, from springs or rivers or upland gathering grounds, could be brought to the population; how it could be carried away again after use, bearing human wastes with it; and, finally, how the product of the sewers could be utilised to manure the neighbouring farm land.⁽²⁾ The attention of local authorities was directed to sources of water which they had never suspected. At Ely William Lee suggested that the polluted Ouse should be abandoned, and the land-drainage water be collected instead from the table-land above the city.⁽³⁾ At Alnwick Rawlinson proposed to get water from the moors, "not by impounding reservoirs, as would most certainly have been done by any Engineer not educated in your school, but by deep drainage.

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1. "Return of all places which have petitioned the General Board of Health for the application of the Public Health Act, etc.", pp. 23 - 24 (Commons, 1 July 1853). P.P. 1852 - 53, xcvi. 1. "Report on the administration of the Public Health Act from 1848 to 1854", p. 39. 1854, xxxv. 1.
2. "Report on the Nuisances Removal and Diseases Prevention Act", July 1849: App. X, pp. 129 - 135.
3. Report on Ely, pp. 36 - 38 (11 January 1850).

The idea was of course new in the district, and the Local Board requested to see some of the water that they might be assured of its quality and have a guarantee as to quantity before being committed to the scheme".⁽¹⁾ Rawlinson made trial borings which revealed water four to ten feet below the surface, two degrees in hardness, and sufficient to furnish 84,000 gallons a day for the 7,000 inhabitants. Two years later Dr. Sutherland told Chadwick, "I have seen the Alnwick works. They are beautiful. I would rather have seen them than the finest temple in the Universe".⁽²⁾

Accounts of the progress of local schemes presently began to reach Gwydyr House. They made encouraging reading for men who had need of encouragement. At Barnard Castle, for example, four miles of pipe sewers, from four to fifteen inches in diameter, had been laid at a depth of seven to eight feet at a cost of 1/8d. a lineal foot; the total cost of draining each house being only £2/6/10, or ¼d. a week. The water supply, instead of being taken from the river Tees, according to the former practice, was collected from soft-water springs nearly five miles distant, and brought by an earthenware pipe to a covered reservoir, and thence by a seven-inch pipe to the town. "The water is only brought into the light in the room where it may be drawn, in a constant supply as fresh as at the spring-head", observed Chadwick with satisfaction. The water supply for each house cost less than 1½d. a week, so that the total rate charge for the combined public works amounted to less than 2½d. a week for each householder.⁽³⁾ When, early in 1853, Chadwick and Southwood Smith spent a pleasant day inspecting the recently completed works, they watched with benevolent approval while "an address was presented to the Local Board by several of the poorer classes expressing their gratitude for the improvements introduced into their dwellings".⁽⁴⁾ Similar

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1. Rawlinson - E.C., 25 September 1852.
2. Sutherland - E.C., 25 June 1854.
3. Drainage Minutes, 1852, p. 134.
4. Minutes, 6 January 1853.

achievements were reported from other towns. At Ottery St. Mary, in Devon, combined works were constructed for less than 1d. per house per week; at Tottenham and Ely for less than 1½d.; at Hitchin and Penrith for 1½d. --- "all being below the average rates of charge for trading companies for separate water works alone." Even Sandgate, where the number of houses was small and their size and value above the average, paid less than 3d.

(1) A return of the Board in 1853 showed that in the towns brought under the Public Health Act, the total cost of combined public works of water supply and drainage averaged 2½d. a week for each house; the private improvement works (such as filling up the cesspool and fitting sink and water-closet) averaged a further 1 1/8d.; the total average weekly cost being thus 3 5/8d. (2)

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1. Drainage Minutes, 1852, p. 134.
2. "Return of all places which have petitioned the General Board of Health for the application of the Public Health Act, etc.", p. 22. A house to house inquiry in London showed the private expenses of each household as follows (Drainage Minutes, 1852, p. 132):

	Old system		Under the
	Annual	Weekly	Public Health
	Expense	Expense	Act.
Mending and cleansing brick house-drains	19/8½	4½	abolished
Cleansing cesspools	1/0/4	4½	abolished
Repairing water-butts and cisterns	19/2	4½	abolished
Making house- drains	2/0/4	9½	
Cost of an intermittent water supply	2/1/9	9½	
Cost of a constant water supply			2d. weekly

These were arguments that a ratepayer could understand; and it was with such figures before him that Chadwick maintained that "the question of scales of sewers is not, as hastily supposed, merely big and little endian controversy, but it is a question on which immense sickness and many thousand lives are dependent".⁽¹⁾ If, as the engineers of the old school asserted, it was necessary to lay down in every street brick sewers large enough for a man to enter, the expense of the works would amount to a positive prohibition of complete drainage in a very large proportion of provincial towns. The smallest sized brick sewer recommended by the surveyors of the old Commissions of Sewers cost 11/- a foot, while the average cost of the entire public drainage at Rugby, Tottenham, Barnard Castle, and Ottery St. Mary was no more than 1/9d. a foot. At Carlisle an eminent railway engineer had estimated £70,000 for laying down street sewers of deposit on the old style; yet self-cleansing tubular sewers were put in for £23,000.⁽²⁾ In fourteen towns where pipe sewers were laid down the total outlay was £98,858, as compared with a probable cost of £249,394 for large brick sewers; and the average cost of each town was no more than £7,061 instead of £17,814.⁽³⁾ Where properly laid, moreover, and adequately supplied with water, they involved no appreciable current expense, whilst brick sewers demanded periodic cleansing by manual labour.

No part of Chadwick's theories, not even his highly coloured picture of the agricultural value of liquid sewage, aroused such violent opposition as his advocacy of pipe sewers. Captivated by the ingenuity of his "Quart into Pint" reasoning, it was said, he ignored the daily instances of choked pipes and the regular working of brick sewers. Small-pipe drainage had

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1. MS fragment, n.d.
2. "Report on the administration of the Public Health Act from 1848 to 1854", pp. 39-40. P.P. 1854, xxxv. 1.
3. The detailed figures are as follows:
(Continued on next page)

been recommended by the Metropolitan Sanitary Commission on the evidence of certain obscure and docile witnesses, all of whom were later rewarded with appointments; they were supported by the conclusions of a Trial Works Committee, who had conducted experiments under the scientific supervision of a staff of bricklayers' foremen. And if Chadwick himself did not stand to make money out of earthenware tubes (his enemies paid him the compliment of not holding him guilty of any lesser corruption than the desire for universal power), the seven pipemakers on the Lambeth Vestry were suspected of supplying funds for F.O. Ward, the press champion of the new system. Tubular drainage, said the critics, was too delicate and sensitive for a population so barbarous as the poorer English, who, as the sewer-men testified, were in the habit of throwing away with their own excreta such unwanted articles as scrubbing brushes,

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(Continued from previous page)

Town	Cost of construction -		Annual instalment to pay	
	Self-cleansing pipe sewers	Sewers for men to cleanse	off the amount, with 4½% interest, in 30 years -	Self-cleansing pipe sewers
				Sewers for men to cleanse
Rugby	3,600	14,976	221	919
Woolwich	15,500	47,663	951	2,926
Croydon	9,500	39,500	583	2,424
Tottenham	4,000	10,000	245	613
Ottery St. Mary	900	2,113	57	129
St. Thomas, Exeter	1,194	6,155	73	377
Barnard Castle	1,800	3,709	114	227
Southampton	26,063/16/3	53,713/7/-	1,600	3,297
Coventry	17,500	36,065	1,074	2,214
Lancaster	7,500	12,000	460	736
Ormskirk	3,000	6,000	184	368
Hitchin	3,300	7,000	202	429
Alnwick	3,500	7,500	214	460
Morpeth	1,500	3,000	92	184
Total cost	98,857/	249,394/7/-	6,070	15,303
Average cost of each town	16/3			
	7,061/5/5	17,313/17/7	433/11/5	1,093/1/5

("Report on the administration of the Public Health Act
..... from 1848 to 1854", p. 40. P.P. xxxv. 1.

hearthstones, nightcaps, and litters of kittens. How could three hundred thousand kitchen maids in London be prevented from flushing their refuse down the sink? Engineers shuddered at the thought of the continual ripping up of hundreds of miles of streets, and the perpetual stoppages and repairs which were bound to occur when a dead cat, a bullock's heart, a handful of lady's hair, or a bundle of stolen napkins was enough to stop up a street sewer. "As the population cannot hastily be fitted for the sewerage", declared one, "the sewerage must be fitted in a degree for the population".⁽¹⁾

Whenever
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~~xxxxxxxx~~ failures occurred (and failures were frequent in those crude experimental days) a triumphant "We told you so!" went up from the Institute of Civil Engineers. To Chadwick's immense indignation the story was spread that the four-inch pipes he had fitted in his own house in Stanhope Street had choked up, and had been replaced by drains of a larger bore.⁽²⁾ Pipes were laid in sandy or slippery soils without protection; their inlets were not properly guarded; they were given insufficient fall, or even, through ignorance or carelessness, were laid with reverse inclinations. They were manufactured of clays and marls unfitted for the purpose, and were badly tempered, crudely formed, and imperfectly burned. They were rough on the surface, porous and absorbent in substance, and so untrue in section that two pipes of twelve inches diameter might show an unevenness of joint when placed together to the extent of an inch or more. A variety of joints --- butt, socket, half-socket, and rabbit --- came into confusing use. Nine-inch pipes were connected to six-inch or four-inch, and at times a tubular sewer or drain was continued by a sewer or drain of larger dimensions, square in section, and formed with dry rubble or bricks set dry together.⁽³⁾

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1. "Reports by Neil Arnott and Thomas Page on an inquiry ordered by the Secretary of State, relative to the prevalence of disease at Croydon", 1853, p. 43 (Page).
2. E.C. - ? , 28 August 1852.
3. See Drainage Minutes, 1852, p. 43, for a description of these errors.

But gradually pipes gained ground, as improved machinery secured greater accuracy of form and increased strength of materials, and experience revealed superior methods of laying and jointing the pipes, combined with more efficient means for inspecting, cleansing, and ventilating them, and guarding them against the admission of improper substances. Chadwick persuaded the Lambeth manufacturers to make pipes of superior strength and workmanship for towns under the Public Health Act. By 1852 one factory alone was turning out weekly ten or eleven miles of glazed earthenware pipes, and Chadwick estimated that not less than fifty miles of sewer and drain pipes were being produced each week. By the end of 1853 27,000 houses in London, nearly a tenth of the total number, were being drained by some three or four hundred miles of pipes. Dr. Sutherland could write in February 1854, after a visit to Rochdale: "The result of the pipe drainage is that there have been no obstructions, no breakages and no cost of repairs. Some of the pipes were laid in 1846. They are laying down pipe sewers in some of the widest streets in Manchester, and I find pipes everywhere. Say what they like, the pipes will eventually gain the day".⁽¹⁾

Chadwick's quarrel with the Institute of Civil Engineers went deeper, however, than a clash of technical opinions. The battle of the pipes was embittered by professional jealousy and personal pique. As scornful as their chief of the "Fossil or Gwilt school"⁽²⁾, Chadwick's bright young men cocked snooks at some of the most respected names in engineering, Stephenson, Rendel, Bazalgette. At Gwydyr House it was commonly said that, in the sanitary field at least, the eminent engineers had

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1. Sutherland - E.C., 2 February 1854. The General Board give the following figures for the manufacture of pipes:

1848	104 miles	1851	1,820 miles
1849	416 "	1852	2,080 "
1850	1,140 "	1853	2,600 "

(Report, 1848 - 54, p. 23. P.F. 1854, xxxv. 1).

2. W. Lee - E.C., 9 March 1852.

been eminent failures; and outside Gwydyr House it was retorted that Chadwick had excommunicated all engineers who refused to be bound by his "Lambeth Pipe theory". Not least among the weaknesses of the Board's constitution was the arrangement by which their Inspectors were paid by the day, and were free, once they had completed an engagement for the Board, to undertake private commissions. They might in their official capacity examine and report on the sanitary condition of a place under the Public Health Act; and then as private individuals put in a bid to carry out the works they had recommended. And very often the services of the Inspector, who had the advantage over his professional competitors that he had already surveyed the ground and had indicated authoritatively the works that would be required, were sought by the Local Board as it faced up to its programme of sanitary construction. Chadwick himself could see nothing wrong with this system. If the Inspector's plan were suitable, why should he not be allowed to execute it? "Apart from what is due in honesty to the first, the most severe and successful labour, looking to the early completion of the proposed works with economy and efficiency, those objects will surely be endangered, by removing proposed works, from the superintendence of professional men of the greatest experience to others of the least experience, or who have all to learn. The Engineers in the service of the Board who have stepped out of their profession to examine towns, with the view to the application of the Public Health Act are entitled to consideration, for the chief employment, in aiding the execution of works which they have aided in preparing".⁽¹⁾ They could be ill spared from their primary duty of conducting the local inquiries, but Chadwick, with his ingrained suspicion of all engineers who did not derive their practice from the principles of his Sanitary Reports, was delighted as one local scheme after another fell into the safe hands of the Inspectors, the only true and dependable apostles of pipe drainage.

Moreover, it was pleasant to be able to tell critics that far from the Local Boards protesting against central interference, they often complained that the General Board had inadequate powers to assist sanitary authorities, fresh to their duties, to administer a novel and difficult measure. Gwydyr House, which had not sufficient staff even to draw up all the necessary byelaws and legal forms, was kept busy enough without the further duty of tutoring Local Boards. The Boards of Health had therefore not had all the working aids which Chadwick had been able to give the first Boards of Guardians. When appeals came in, however, he felt he must draw upon his slender resources of men and time to find them an answer.⁽¹⁾ Thus, up to May 1853 the Inspectors of the Board had been employed as engineers to carry out works under the Public Health Act at fifteen places, and at a further twenty-one places the works were being executed or about to be executed by them.⁽²⁾ By 1854 24 towns had asked the General Board to name an engineer to plan and superintend their works; 11 had asked their advice in the appointment of surveyors; 25 surveyors had sought the help of the Board's chief engineer, Henry Austin; and 44 towns had engaged the Board's Inspectors.⁽³⁾

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1. Requests for the help of an Inspector are noted, for example, in Minutes, 2 September 1850, 29 September 1853, 24 July 1854.
2. "Return of cases in which either of the Superintending Inspectors of the General Board have been employed as Engineers in carrying out the Works which have been executed under the Authority of the Public Health Act, 1848, and of cases in which the Works are being executed or about to be executed by the said Inspectors", 23 May 1853 (Commons, Col. Harcourt). P.P. 1852 - 53, xcvi. 27.

Inspectors had been employed as engineers at: - Rugby, Sandgate, Barnard Castle, Southampton, Coventry, Newmarket (survey only), Ormskirk, Hitchin, Croydon (water works and plan only of drainage works), Penrith, Dartford, Launceston, Ashby-de-la-Zouche, Selby, Epsom.

Works were being executed or were about to be executed by them: at: - Lancaster, Alnwick, Morpeth, Nantwich, Rotherham and Kimberworth, Baildon, Altrincham, Berwick-upon-Tweed (works of sewerage only), Wigan, Knighton, Newcastle-under-Lyme, Burslem, Diss, Maidenhead, Gainsborough, Cardiff, Warwick, Dover, Gloucester, Salisbury, Woolwich.

3. Report, 1848 - 54, p. 44. P.P. 1854, xxxv. 1.

But it was not simply as privileged rivals, backed by the authority of the Board of Health, that the professional engineers had reason to fear the Inspectors. In conducting the local inquiry the Inspector brought under scrutiny any projected schemes for sanitary improvement, and his opinion naturally weighed heavily with the Board, who, under the 119th section of the Public Health Act, must give their sanction to any local plans before a loan could be raised on the mortgage of the rates. It was contended that this might mean, in effect, that an engineer was obliged to submit his plans for the approval of a man who might later put himself forward for the same engagement with the Local Board. At Durham, for example, there was a brush between the Inspector, William Lee, and Chadwick's one-time favourite, Thomas Hawkesley. Hawkesley, whose more recent utterances sometimes contradicted his opinions of that earlier period when he had been looked to as the chief engineering hope of the Towns Improvement Company, was now completely out of favour at Gwydyr House. Lee, after an examination of the plans he had prepared for the improvement of Durham, could see no reason why the work Hawkesley estimated would cost £6,000 should not be done for £4,300.

Charles May, Hawkesley's Quaker partner, wrote to protest, Hawkesley himself apparently refusing to have any personal communication with Chadwick. "I can find nothing in the Act to authorize the Board in requiring Engineers of whatever skill or eminence, to submit the details of their plans and estimates to other, it may be much junior, engineers who are their direct competitors in the particular branch of engineering in question", he observed. "It was one object of my call upon thee to represent the general feeling of the profession, that this course is one subversive of honourable competition and degrading in its character, as creating a repugnance in the mind of those best able to serve the public to such supervision".⁽¹⁾

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1. Charles May - E.C., 7 July 1852.

Despite his experience as a water works engineer, replied Chadwick, Hawkesley had never drained a town in his life, and had always averred that drainage was a separate branch of practice. "Why", he exclaimed, "the junior inspector has had far more practice in town drainage but more particularly ^{improved} town drainage than you both put together or any one of the engineers the most eminent you have named".⁽¹⁾ To the Dean of Durham he confided his belief that the whole affair was "utterly frivolous". "All this means as it seems that Mr. Hawkesley objects to any examination of his plans or to such examinations only as he likes or by whom he likes I do not understand how professional engineers could get on if they are never to act, except when they are clear of rivalry".⁽²⁾

Hawkesley subsequently published a pamphlet, alleging that another Inspector, Ranger, after condemning Hawkesley's plans for the Darlington waterworks, which he had peremptorily demanded to see, had soon afterwards reproduced the specifications verbatim as his own work at Barnard Castle and Southampton. At Croydon Ranger had rejected plans submitted by two other engineers --- and had then accepted the engagement himself. Chadwick had personally objected to the employment of Wicksteed by the Leicester Local Board, and had suggested to Great Grimsby that Rendel should be superseded by an Inspector. These were grave charges, and for a time Chadwick contemplated proceeding against their author by criminal information, so that the Board and the Inspectors might deny the allegations on oath.⁽³⁾

Conscious of his own rectitude, and distrustful as ever of the motives of his opponents, Chadwick did not give full weight to their criticisms until it was too late. He was always prepared to agree that it was a sound principle that the Inspectors should be paid an annual salary. It would protect

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1. E.C. - Charles May, 20 July 1852.
2. E.C. - Dean of Durham, 23 July 1852.
3. E.C. - Lord ? , 7 June 1853.

them against the charge that self-interest dictated their approval of any particular drainage scheme; it would relieve them from the invidious duty of passing judgment on the plans of their rivals; and it would set free all their time and abilities for the functions of their public office. The serious disadvantage, as it seemed to Chadwick, was that it would also deprive provincial towns of experienced sanitary engineers before the transition to the new system was safely accomplished. Approving the principle, therefore, he would nevertheless on this account have liked to put off its introduction till sixty towns had been completed by the Board, by which time the Institute of Civil Engineers would be in full retreat and the danger of local blundering, as at Croydon, would be greatly diminished. By the middle of 1853, however, a number of successful examples of the new works were in operation, and he consented, not without misgivings that the step was being taken prematurely, to a draft clause making it illegal for the Board to appoint an Inspector otherwise than at a fixed yearly salary. By this time the damage had been done, and the idea had become fixed in some influential heads that the Board of Health was an arrangement for the benefit of Chadwick's protégés. It afforded excellent material for Lord Seymour in the momentous debates which decided Chadwick's fate.

CHAPTER 15.THE LOCAL BOARDS.

The constitution of the Local Boards was laid down in the schedules attached to the Confirming Acts and Orders in Council of the General Board, to whose discretion the Public Health Act had left the decision as to the size of the new local authorities and the property qualifications of their members. (1) The schedules were short and followed a simple, unvarying pattern. The Local Board was to consist of a certain number, one-third of whom were to retire each year. They must be resident, and be possessed of real or personal estate, or both, to a certain minimum value, or rated to the relief of the poor of some parish, township or place within the district upon a

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1. Confirming Acts ("Public Health Supplemental Acts"): -
 - 1849: 12 & 13 Vic. cap. 94, 1 August: 15 places.
 - 1350: 13 & 14 Vic. cap. 32, 15 July (9); cap. 90, 14 August (6); cap. 103, 15 August (16): total, 31 places.
 - 1851: 14 & 15 Vic. cap. 80, 7 August (1); cap. 98, 7 August (13); cap. 103, 8 August (6): total, 25 places.
 - 1852: 15 & 16 Vic., cap. 42, 30 June (7); cap. 69, 30 June (8): total, 15 places.
 - 1853: 16 Vic. cap. 24, 9 May (7); cap. 126, 20 August (3); total, 10 places.
 - 1854: 17 & 18 Vic. cap. 53, 31 July: 6 places.
- Orders in Council (see "London Gazette"): -
 - 1849: 5 September (6); 6 October (3): total, 9 places.
 - 1850: 3 January (5); 30 January (5); 9 March (4); 19 June (6); 13 July (6); 15 July (2); 14 August (1); 24 September (4); 19 November (1); 3 December (1); 12 December (1); total, 36 places.
 - 1851: 11 February (3); 14 April (3); 5 May (4); 25 June (2); 7 August (4); 23 October (3); 26 December (1): total, 20 places.
 - 1852: 10 January (1); 2 February (1); 5 April (1); 15 May (1); 18 August (1); 16 October (1); 27 November (1): total, 7 places.
 - 1853: 7 February (2); 21 February (4); 1 April (1); 13 June (1); 8 August (1); 25 November (1); 29 December (1): total, 11 places.
 - 1854: 7 April (2); 8 June (2); 3 July (3): total, 7 places.

certain annual value. The date of the first election was fixed; and its conduct entrusted to some leading citizen, the Chairman of the Board of Guardians, the Union Clerk, the Vicar, the Lord of the Manor, a Justice of the Peace, a solicitor, or a banker. The result was inevitably, as Chadwick described it, "the Local Government of a Class", and "that Class the well to do Class".⁽¹⁾ In 29 out of 78 places to which the Act was applied by Order in Council, the property qualification was put at £1,000; in 3 places at from £600 to £800; in 31 at £500; in 12 at £300 or £400; and in 3 only at less than £300, the lowest figure being £200. The alternative rating qualification tells the same story. In 50 places out of the 78 it ranged from £20 to £30 per annum; in a further 24 from £10 to £20; and in 4 places only was it less than £10.

From the same group of places may also be illustrated the trend of the Board's policy in fixing the size of the Local Board. In 56 places the number was put at 9; in a further 18 at 12; in 2 the number fell to 6, in another 2 it rose to 15. The figures for the Provisional Orders give a similar picture, though here a few of the Boards were given 18 members. When the Vestry Committee of Brighton asked for a Local Board of 42, the General Board opposed the demand with vigour. Their figure was 24, but they expressed their willingness to compromise on 30. The apprehension was groundless, they declared, that 30 was an inadequate number to supply committees. In large Boards responsibility was weakened and business impeded by irrelevant discussion and irregular attendance.⁽²⁾ A compact sanitary executive of 9 or 12 members, with the sound views of men of substance; elected on a property franchise by plural voting; holding power for a limited term of three years --- this was the aim of the Board's policy in the localities.

Once a Local Board had been constituted, however, the

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1. E.C. - I. P., 24 March 1848.
2. Minutes, 15 and 17 April 1852.

members elected to it might well be adverse to the operation of the Act. They might be of the humour of the Local Board at Mileham, who declared that they "do not consider any Plans or Maps whatever will be required for the proper drainage of the District".⁽¹⁾ An unwilling Board might even commit suicide; the Bromyard Local Board, for example, who "not having elected a Chairman, held a meeting, or taken any other step in execution of the Act, and more than three months having elapsed since the election all the members of the Board have become disqualified and the Act has become a dead letter".⁽²⁾ At Selby the opponents of the measure used bribery and corruption to get themselves elected to the Board, and then promptly passed a resolution announcing their intention to prevent the construction of the combined works to which the General Board had given its approval, following this action by reducing the salary of the surveyor from £150 to £75.⁽³⁾ Sanitary powers might for years fust unused, until a more progressive Board were put in office. Thus, at Sheerness the Local Board fell under the dominance of an adverse majority shortly after its establishment, and for three years after it had passed under the Public Health Act the town, which as a naval dockyard had close relations with the central government, remained in its state of abject squalor.⁽⁴⁾ There was some sharp comment about the delay in the "Times", and Chadwick wrote in defence of the General Board: "A local Board is often several years in making up its mind; it then sends in its plans for examination in a hurry; --- often essentially imperfect. We have only one engineer available for the service of examination, who is worked night and day, and some weeks delay occurs, --- as in a private, over worked professional office; --- but the years of delay are laid to the door of the General Board".⁽⁵⁾

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1. Minutes, 26 October 1850.
2. *ibid.*, 13 May 1853.
3. *ibid.*, 13 and 29 April 1853.
4. W.F.A. Delane - E.C., 11 June 1853.
5. E.C. - W.F.A. Delane, 9 June 1853.

There were complaints --- from Fareham, Epsom, Castleford, and Worcester, for example⁽¹⁾ of the stupor and inefficiency of the local Boards. The General Board could only reply that they had no power to compel the local authorities to carry out the requirements of the Act. When the Godmanchester Town Clerk reported that the Corporation, in accordance with the wishes of the inhabitants expressed at a public meeting, had determined not to put the provisions of the Act into force, the Board had no answer but to point out that they were thus violating an Act of Parliament.⁽²⁾ The three reformers early decided "that they would not press the Act, because under the existing state of the law, it appears to them to be of no use to call into existence an administrative machinery or to impose responsibilities where there is no adequate authority, no efficient support, of means for public prosecution: and where the subject has no means to enforce them".⁽³⁾ When so much of the sanitary legislation was discretionary, it was little use, they felt, waving a writ of mandamus over the heads of recalcitrant authorities. In a few of the more flagrant instances of neglect they considered recourse to the remedies of the Common Law. In a Minute of December 7th 1853, for example, they "took into consideration the question of misfeasance, malfeasance and non feasance of the Local Board of Health of Luton in relation to the recent loss of life by epidemic cholera in that place, where it appears from the report of Mr. Lee that many of the population have been affected with Asiatic Cholera and a number of persons have been killed and much misery occasioned by causes which with a due execution of the law were preventible". It was an indictable nuisance under the Common Law to prevent the free passage of air, to corrupt the public water supply, or to divide a message in such a way that it became dangerous in time of infection.

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1. Minutes, 17 January 1850, 28 June 1851, 7 April 1853, 8 October 1853.
2. *ibid.*, 14 November 1851.
3. MS fragment, n.d.

Homicide by "unlawful omission" might be committed by anyone who neglected a legal obligation to apply food, clothing, or other necessities required to sustain life or prevent injury. Now it was one duty of Local Boards to cause such sewers to be made as might be necessary for the purposes of the Public Health Act --- and that duty was no discretionary but compulsory. They could therefore be held liable to penal consequences for the imperfect discharge or unlawful omission of this obligation. In the opinion of the General Board, it might be proved by medical testimony that if the Luton Board had exercised due diligence in performing their duty a large proportion, if not the whole, of the disease and loss of life might have been prevented, and that other lives were still jeopardised by the continuance of the like neglect. It was no legal or moral defence against this charge that the Luton Board had only obeyed the instructions of their constituents; a majority could not dispense with Acts of Parliament --- and, in any event, the ratepayers were not the majority of the inhabitants. "The lesson held forth to the class amongst whom the victims to the neglect occurred is that whilst offences against another class and against property as in the case of the firing of houses or the Bristol riots are punished with severity, offences by which disease and death are spread broadcast among the poor and unrepresented classes, and that too not upon any sudden excitement but wilfully with aforethought and deliberation, go unpunished". Corporate bodies, the Board concluded, were personally responsible for deeds done in a corporate capacity.

But no swift punitive action followed this homily. The Board could only observe that the Luton case illustrated the need of greater security for unprotected populations, and then resolve that the facts should be laid before Lord Palmerston with a view to prosecution by the Law Officers.⁽¹⁾ Drainage and water supply, however, were not subjects in which the

Government felt that its prestige was involved, and, even in the midst of an epidemic, the Law Officers of the Crown regarded the struggles of the Board of Health with a detachment which reflected the lack of interest of the ruling classes.

Only half a dozen clauses of the Public Health Act gave the Board any real measure of control over the local authorities of their creation. Their consent was needed for the establishment of pleasure grounds, and for the closing of an old burial ground or the opening of a new.⁽¹⁾ They could hear the appeals of parties who believed themselves aggrieved by the Private Improvement rates imposed by the Local Board.⁽²⁾ But their chief power was the sanctioning of mortgages on local rates to supply the funds for works under the Public Health Act.⁽³⁾

Here was the instrument by which Chadwick hoped to control the financing and planning of the new sanitary works. Before the Board would consider the sanctioning of a mortgage, they insisted on seeing a complete survey of the district, together with plans and estimates of the proposed works, and details of the charges to be laid on the ratepayers. If the works were too extravagant, or were designed on the old principles, or did not combine drainage and water supply under one administration; if the rates were not calculated according to Chadwick's principle that the charges should be spread over a period co-extensive with the benefits derived from the works --- then Austin, who acted as the Board's referee on engineering questions, invariably reported against the approval of the mortgage.⁽⁴⁾ Thus, when the Local Board of Eton requested

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1. 11 & 12 Vict. c. 63, secs. 74, 82, 83.

2. *ibid.*, sec. 120.

3. *Ibid.*, sec. 119.

4. Minutes, 6 February 1851, 31 March 1852. Cf. "Report on Nuisances Removal and Diseases Prevention Act", 1849, p. 62:

"For the security then of the several interests involved, namely, for the security of absentees and reversioners, for the protection of minorities, for the prevention of the failure of the objects of the legislature by such unskilful, inefficient, or extravagantly expensive works as have been

(Continued on next page)

permission in April 1850 to raise a loan of £1,000, the General Board withheld their approval until plans, estimates, and particulars of the works were furnished⁽¹⁾; and in February 1852 they refused to sanction a plan for the drainage of Leicester for which a £35,000 loan was wanted, condemning "its imperfect, wasteful, and inefficient character".⁽²⁾

In addition to this measure of control over the public loans of the local authorities,⁽³⁾ the Board had certain powers with respect to the officials appointed under the Act. The surveyor could not be dismissed without their consent, and their approval was necessary to both the appointment and the removal of the medical officer of health.⁽⁴⁾ The intention was to

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(Continued from previous page) displayed by recent local examinations, and acting under a sense of the responsible relations above set forth, we propose to adopt as a principle to sanction the mortgage of rates, and the distribution of charges only on conditions such as the following: -

First. That plans and estimates have been prepared in detail, and submitted for examination to an Inspector.

(a) And upon his Report found to be deserving of approval;

(b) As being of a nature to last, and of advantage equal to the value of the improvement rate during the period of years over which the charge is distributed.

Secondly. That the works shall be executed upon contracts, on the following conditions:

(a) That before they are covered up, or put in operation they shall be examined by the Inspector.

(b) That they shall be further examined by him when in action, and be certified by him, to be in conformity to the plans and specifications, and to be of fair probable value, to justify the future annual improvement rates.

(c) That they shall be maintained in good action by the contractor for a term of not less than five years".

1. Minutes, 25 April 1850.
2. *ibid.*, 12 February 1852
3. They continually bemoaned the limitations of this, their most salutary power. They could not, for example, prevent the raising of money for a Local Act, despite their objection on principle to such a procedure. Thus, they sanctioned £4,000 for a Local Act for Bilston, "which the Board regret that they cannot withhold under the terms of the Act, though they wish to record their sense of the impropriety and gross extravagance of such expenditure".
(Minutes, 16 May 1851).
4. 11 & 12 Vict. c. 63, secs. 37, 40.

interpose a shield of impartial and distant authority between these officers and the interested animosities which might secure a dominating position on the Local Board. As Austin told Chadwick of the surveyor at Hull: "He is doing his work well and with energy, but he has had much to contend with. He told me that if it had not been for the protecting clause in the Act, he could not have kept his place for six months, that without it, his position would have been unbearable, and that he would not have remained for a thousand a year. It is certainly so with all the best men we have".⁽¹⁾ But despite the safeguard against removal, the officers remained the creatures of the men who paid their salaries and fixed the conditions of their service. There was an illuminating clash with the Local Board of Clitheroe on the issue. On March 20th 1852 the General Board were informed that the Clitheroe surveyor had been dismissed "in consequence of the determined opposition by a large and overwhelming majority of ratepayers, property owners and other persons interested, to the further application of the provisions of the Public Health Act, and the utter impossibility of executing its provisions and duties under present circumstances". The Board replied that as they "have no power to release the local Board from their legal obligation to carry out the Public Health Act in the best way they can, they cannot legally sanction the dismissal of a Surveyor where no other reason is alleged for it than the inability of the local Board to fulfil their duties under the Act".⁽²⁾ Nevertheless, although threatened by a writ of mandamus, the Clitheroe authorities resolved not to carry out the Act.⁽³⁾ The surveyor, backed by the General Board, stuck to his post,⁽⁴⁾ whereupon the Clitheroe Board reduced his salary to 25 shilling per annum, and he was obliged to resign.⁽⁵⁾

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1. Austin - E.C., 16 April 1853.
2. Minutes, 20 March 1852.
3. *ibid.*, 3 May 1852.
4. *ibid.*, 2 December 1852.
5. *ibid.*, 14 March, 4 April 1853.

Any Local Board which embarked on a scheme of public works must needs appoint a surveyor; but the necessity for an officer of health was less keenly felt, and the parsimony and short-sightedness of the local authorities prompted most of them to dispense with this appointment. The difficulties in the way of creating a permanent paid medical service were clearly illustrated when Bilston asked the Board to sanction the appointment of an officer of health --- at £20 a year.⁽¹⁾ When the Local Board of Southampton expressed the view that it was not desirable that their officer of health should abstain from private practice, they were firmly told that his public duties were incompatible with the demands which such private practice would make upon his time.⁽²⁾ But what answer could be returned to the medical officer of Darlington, who stated that he did not intend to relinquish his private practice, since his salary was only twenty guineas per annum?⁽³⁾ The Board's solution, contained in a letter circulated to the local authorities, was to suggest that, where any district was too small for the payment of a properly qualified officer of health, the best plan would be "to appoint one person to act for several adjoining towns".⁽⁴⁾ It was not till 1872 that the appointment of a Medical Officer of Health and an Inspector of Nuisances was made obligatory on the district boards; the following year grants were offered covering half the salaries of sanitary officers deemed satisfactory by the Local Government Board; and their security of tenure was eventually secured by the Sanitary Officers Order of 1910 and the Public Health (Officers) Act of 1921. It had taken two generations, since that first sketch in the "Sanitary Report", for Chadwick's conception of the nature and duties of an officer of health to realise itself in administrative practice.

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1. Minutes, 26 December 1850.
2. *ibid.*, 14 November 1850.
3. *ibid.*, 1 January 1851.
4. Austin (forwarding Minutes of Information as to the duties and powers of Local Boards under the Public Health Act), 9 October 1850.

When Chadwick began his sanitary investigations in 1842, hardly a town in the kingdom had a publicly owned water supply, and few voices were raised against the dominant faith in profit and private enterprise. His reports had played a decisive part in developping among local authorities the self-confidence to take public utilities such as water and gas into their own hands. We have seen, however, that in the period from 1842 to 1848, Chadwick oscillated between advocacy of municipal trading and of large-scale private enterprise under Parliamentary regulation. The "Sanitary Report" and the Health of Towns Commission had been largely an inquest on the shortcomings of parochial and municipal bodies. In the first flush of the Towns Improvement Company, and despairing of action from a thankless and unenlightened Government, Chadwick had laid it down as a principle that commercial agencies were the only hope for sanitary reform. Much had happened to change that opinion. The golden prospects of the sewage manure project had faded. His railway inquiries had shattered the myth of capitalist efficiency, and contact with cemetery and water companies had shown him that to look to profit-making corporations to plan for the public interest was like putting the flock in the care of the wolf.

The complete shifting of his ground was admitted and defended when the Board summed up their experience in their final report in 1854. The failures pointed out in the Health of Towns Report, they stated, had justified the presumption that the local authorities were incompetent to provide water supplies; but the subsequent examination of trading companies had revealed no superiority in efficiency, economy, or management. Water companies usually limited their service to houses belonging to the upper and middle classes, and were obliged to recoup themselves by increased rates on the restricted number of their customers. Experience under the

Public Health Act, however, had proved that an early and general extension of works to the whole population of towns was both necessary and practicable. Local authorities could supply the poor for 1½d. a week, and at the same time avoid the risks and losses of a trading body. Moreover, the wary capitalist rarely undertook the construction of works for complex objects, such as combined works for drainage, water supply, and sewage disposal. "If an unprejudiced examination of the new works be made", concluded the Board, "notwithstanding the imperfections that may yet attach to them, they will be found to exonerate municipal corporations and local administrative boards from the charge of incapacity made against them; to have improved the security for good local administration, and to demonstrate that such works may be obtained more efficiently and cheaply, including the proportion of establishment charges, under local public management, by payment for common and responsible service, than by the motive of a trading profit to be levied on individual necessities".⁽¹⁾

Throughout its brief life, therefore, the Board of Health encouraged Local Boards to take public utilities into their own hands, ousting, forestalling, or combating as necessary the agents of private enterprise. At Carlisle, for example, Rawlinson recommended that the water company should be taken over by the Corporation. Though a company was as capable as any public body of constructing efficient works, it could never have the same motives and interest to urge a general use of water for purely public objects, such as surface washing and as a means of ventilation in crowded streets; nor could they possibly have the same means at their disposal to accomplish these purposes.⁽²⁾ When a Reading deputation asked the Board whether they should oppose the Bill then before Parliament for extending the capital and powers of the water company, the Board agreed that it was contrary to public policy to allow the

1. Pp. 24 - 6. P.P. 1854, ⁻³⁻xxxv. 1.

2. Report on Carlisle, pp. 79 - 80 (June 1850).

introduction of new capital by a trading company. "It was the duty of the Local Board to oppose the introduction of such new capital, and so to keep themselves free for the choice of any improved source of water supply for their district".⁽¹⁾ In March 1854, in an interview with the Clerk of the Local Board of Hull, the General Board promised their support to a Bill which aimed at consolidating the Local Board's control over the gas works and the cemetery, both of which were in the hands of trading companies.⁽²⁾ A week later they declared their intention to support a motion that ~~the~~ a Water Works Bill for Southport should be postponed, in order to give the Local Board time to prepare a scheme which would put the supply under their own management.⁽³⁾

Chadwick's original intention had been that the Provisional Orders should in effect be Local Acts, framed to cover, not only the narrowly interpreted objects of a sanitary measure, but also such other matters of local administration as paving, lighting, markets and roads. In the first of the Confirming Acts (August 1849) he succeeded in inserting a clause which empowered Local Boards to enter into contracts for the supply of gas or oil or other means of lighting, and to provide lamps, lamp posts, and other materials and apparatus as necessary.⁽⁴⁾ But the scrutiny of the Parliamentary critics was too keen, and objection was promptly voiced to the introduction of these supplementary clauses. The absence of provisions of this nature was one reason why in some places, Newcastle and Birmingham for example, a Local Act was preferred to the simpler and cheaper procedure by Provisional Order. The Board regarded it as one of their most important duties to send their experts before the Private Bill Committees to oppose such Bills in principle or in detail. Twice they succeeded

1. Minutes, 13 February 1851.
2. *ibid.*, 10 March 1854.
3. *ibid.*, 18 March 1854.
4. 12 & 13 Vic. cap. 94 sec. viii.

in defeating a Local Act, and in others they secured the insertion of the mortgage clause; but they failed in other attempts because they lacked the means to bring up witnesses, and they had had no recognised locus standi before the Committees.⁽¹⁾

The immense output of instructional pamphlets from the Stationery Office of today would have delighted Chadwick. Throughout his official career he was engaged in cutting channels for the regular flow of information from the localities to the central departments, and thence, digested, tabulated,

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1. As a notable example, see the Minute of 9 March 1849 on the Bill for the water supply of Macclesfield:

"The scheme appears to be on the old system, which has been decided by the Health of Towns Committee as well as by the result of inquiries under the Public Health Act to be inadequate and unsuitable for the purposes of the Inhabitants, even supposing the quality of the water and the source of the supply to have been carefully tested, and found to be unexceptionable". The Minute then proceeds to criticise the Bill in detail. (1) "The Corporation can scarcely have considered the necessities of the poorer classes of tenements, or indeed of any class, when they proposed to raise capital on a scheme founded on the system of intermittent supply". (2) No security was provided for the economical laying of the pipes, on which half the capital would be spent. (3) The whole of the immediate outlay would fall on the owners and occupiers, the effect being "to impede the extension of the supply to the middle class of houses, and to act as an entire prohibition to a large proportion of the poorer class". (4) Baths were to be a separate charge, which would act as "an extensive tax on the community" and a great "discouragement to one of the most important aids to the health of the community".

The Board furnished evidence in March 1851 on the defective provisions of the Wrexham Local Bill (Minutes, 7 March 1851). The promoters attempted to reach an agreement with the Board, declaring their willingness to incorporate the mortgage clause into their Bill. The Board, however, expressed their determination to apply the Public Health Act by Provisional Order, and so "secure to Wrexham the means of self-government in matters of health and cleanliness, at a cost probably of little more than one-tenth the expense of a private Act" (Minutes, 22 October 1851).

and illuminated by a wider experience and a deeper science, back again to the local authorities. As he always insisted, even if the powers of the Board of Health had been greater, he would still have preferred to proceed, whatever the extra labour, by persuasion and on full exposition of the reasons.

For the guidance of the inexperienced Local Boards the body of sanitary doctrine which Chadwick had built up on the results of his ten years of investigation was set out in three instructional pamphlets --- on house drainage, land drainage, and the application of sewage manure.⁽¹⁾ In the first of these they were told that their primary duty was the removal of all cesspools from amidst habitations, and their replacement by water-closets and tubular drainage; and for their information diagrams and descriptions were given of the improved works which were gradually coming into use, such as screw-joints for earthenware pipes, moveable dust bins, and a simpler form of water-closet with a syphon trap and a stoneware pottery pan. With a complete system of combined works of water supply and tubular house-drains, connected with properly adjusted branch and main sewers, there was no exception to the rule that refuse need not be permitted to remain underneath or near houses, beneath streets or near the sites of towns. All might be in a constant state of inoffensive and entire removal at a rate of about three miles an hour, and in a current of such velocity that no deposit could be left to accumulate. In the second set of instructional Minutes the General Board informed the local authorities that they should not confine their attention

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1. (1) "Minutes of information collected in respect to the drainage of the lands forming the sites of towns, to road drainage, and the facilitation of the drainage of suburban lands". P.P. 1852 (1471), xix. 1.
- (2) "Minutes of information collected with reference to works for the removal of soil water, or drainage of dwelling-houses and public edifices, and for the sewerage and cleansing of the sites of towns". 1852 (1535), xix. 307.
- (3) "Minutes of information collected on the practical application of sewer water and town manures to agricultural production". 1852 (1472), xix. 133.

to the drainage of houses and streets. The removal of excess moisture from the site on which the town was built, from the roads which connected it with other places, and from the lands which fringed its suburbs, was equally a matter of concern to the sanitary economist. Chadwick recalled how a London medical officer had once taken him to an elevated spot overlooking his parish. "Those mists", he had said, pointing, "exactly mark out and cover the seats of disease for which my attendance is required. Beyond those mists I have rarely any cases to attend to but midwifery cases and accidents". (1) Catarrh, rheumatism, scrofula, would all be decreased by an energetic policy of land drainage. Moreover, the value of the land would be enhanced. Heath and moorland, formerly dear at 5/- an acre, had been sold for 30/- or £2 when thorough-drained, and clayey soils had risen in value from 7/6 to £3 or £4 an acre.

The trilogy of instructional pamphlets was completed by the Minutes on Sewage manure, which assured Local Boards that for an outlay of 6/- an acre annually for piping the liquid sewage to the fields the fertility of three or four additional farms could be put upon one. Hitherto the English farmer had regarded as manure only that which he could raise with a fork: sooner or later, however, he would consider that only as regular manure which he might apply with a scoop. The Local Boards must regard themselves as trustees for the inhabitants collectively in the management of this valuable public property, which could not properly be made the subject of permanent saleable or heritable or vested and proprietary rights.

As one fat Report followed another, and Gwydyr House put out its Minutes of Information and its sheaves of model bye-laws, it was whispered that the printer to the Board had a very lucrative business. The tracts were excellent, wrote J.R. McCulloch from the Stationery Office, but why were they distributed free? "I believe if you were here", Chadwick replied, "you would vote for doing more rather than less in the

way of the distribution of information to the Local Boards. We have been admonished by the highest authorities that we must "conciliate public opinion": indeed without that admonition we feel we must do so. We have very little power, and in these times it is difficult to exercise any power, and after all, it is better to proceed by the influence of instructions where we can. In consequence of the instructions five towns have agreed to work for the distribution of sewer manure, and we expect that by August they will be seen pumping it on the fields; five or six more are on their way to new works: and several have we are told been stopped erecting bad works by the information. If we can get this system in complete operation in a few towns, it will be worth I apprehend, not only the whole expense of the printing ten times over but the whole expense of the Commission!" (1)

It was not the first time that he had clashed with the Stationery Office. In 1849 McCulloch proposed to the Treasury, "for the sake of economy", that all reports and papers should be printed in folio. Prima facie, Chadwick at once objected, it was improbable that folio was cheaper than octavo; and to support his point he made inquiries which revealed that octavo editions could be produced for 24 per cent. less, and that if the whole of the Parliamentary printing were put in the convenient form adopted by all the world except Her Majesty's Stationery Office, some £24,000 a year might be saved on an annual bill of £200,000. Nor was this the most important aspect of the question. "Either the objects of the Board must be attained by the naked exercise of power, --- in which case it must have additional force of officers, which would be expensive, or it must act by persuasion, that is to say by the exposition of facts, and their influence on opinion". (2) To

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1. E.C. - J.R. McCulloch, 24 February 1852. "In my view it is an essential function of any competent central authority, that it should from its wide means of observation carefully collect and distribute such information for the use of local boards". ("Economics of Sanitary Works", MS, n.d.).
2. "Administrative. Relations of the General Board of Health with the Treasury. Minutes for a paper on", MS, n.d.

the latter course printing in folio would be fatal, since, as the printers confessed, 3,000 copies in folion would not be as much read as 1,000 in octavo. In May 1849 there was a sharp correspondence between Chadwick and McCulloch, "a battle of books between official folios and official octavos, between big and little blue books".⁽¹⁾ Chadwick, seeking allies, wrote to remind Lord Brougham that he was the father of the practice of printing in octavo those official reports which were seriously intended to be read. "You will concur that the accessibility of legislative reports, the efficiency of legislative labour, the means of the diffusion of this branch of useful knowledge, is not a small subject". The Poor Law Report of 1834, and the extracts from the evidence of the Assistant Commissioners, had been the first official papers to be printed and circulated in octavo. The folio editions of those reports were now in the warehouse or had been disposed of as waste paper; of the smaller edition nine or ten thousand copies had been distributed gratuitously to the parishes and a further fifteen thousand had been sold.⁽²⁾

In 1851 and 1852 Henry Austin, relieved of his anxieties as Engineering Secretary, was sent out as an emissary of Gwydyr House to make personal contact with the Local Boards. From time to time he reported to headquarters his impressions of his tour. At Derby, where no plan of the town drainage had previously existed, he found the Local Board actively engaged on improvement measures, and delighted with the increased powers derived from the Public Health Act.⁽³⁾ At Norwich, however, they were "fencing with the question of the Survey".⁽⁴⁾ His intervention at Ely, where a majority of the Board had been hostile, cleared up a number of misconceptions and greatly

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1. E.C. - ?, 1 June 1849.
2. E.C. - Lord Brougham, June 1849.
3. Minutes, 12 July 1852.
4. H. Austin - E.C., 28 February 1852.

helped the progress of the drainage scheme.⁽¹⁾ At other places, too, his assistance was welcomed.

"It is rather a melancholy case", he wrote from Towyn. "I have seen nothing out of Ireland, bearing the same deplorable appearance, or in an equally bad condition.

Nearly the whole of the property is in the hands of Trustees for a Minor and is managed by an Agent, who, in opposing all improvements, forced the inhabitants to take refuge under the Public Health Act.

The place is however far too small to support the Machinery of the Act, and is precisely one of those for which other provisions are urgently required.

There are only about 150 houses in the town, and nine tenths of those are under £5 rateable value. I need scarcely say that there is not a drain in the place, scarcely the luxury of a cesspool, soil and refuse of every description strewn every spot, nearly, except the main street. There are two places from which the whole population has to fetch water.

Accompanying this state of things is a corresponding condition of ignorance how to remedy it --- although the Board, impressed with the magnitude of the evil, are most anxious to do so. Clark, unfortunately, not considering the character of the place, had recommended a scheme of drainage and water supply which would cost more than double the amount actually required for suitable works, and more than double indeed, the whole sum which they would be empowered to borrow --- and therefore they had determined at last upon a defective scheme of partial drainage without water supply.

They expressed themselves very gratefully towards the General Board for sending me to them, and were most thankful for the advice given. They will proceed at once to get out a plan of complete works, and as an example of economy and of the amount of improvement which may be effected for the money, I

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1. H. Austin - E.C., 28 February 1852.

believe it will be a curiosity". (1)

"Brynmawr", he wrote a few weeks later, "has been to me the most satisfactory case I have yet visited. It is a wretched place wholly dependent upon the iron works there. The mortality is frightfully high, but I was assured that they would do nothing but carry out a most objectionable plan of drainage for which they had applied to the General Board to sanction a mortgage of £1,500 --- which if not granted, they intended to levy at once by rates. It certainly did appear a hopeless case, and the more so because they had actually entered into contracts and had commenced the works. I am happy to say however that I was enabled to induce them to stop the works and give up the contract, and begin de novo to lay out a proper plan of drainage and water supply, for which they will apply to the Board for a mortgage of between £4,000 and £5,000. It will be the more important case as an example to the large populated districts here engaged for miles around on the iron works --- all of the same miserable kind." (2)

Inexperienced Local Boards, struggling with their novel duties, received with thankfulness the instructional Minutes of the Board of Health and the advice of their Inspectors. At more than one place votes of thanks were passed or grateful letters addressed to Gwydyr House. The arguments of Toulmin Smith here fell on unbelieving ears. The application of the Act had not deprived them of local self-government, declared a report of the Worthing Sanitary Committee; for their former Commissioners held office for life, while one-third of the local Board must retire every year, and no member could remain in office more than three years without re-election. As for the necessity of seeking the General Board's sanction to local schemes, "we look upon this restriction as affording the very best possible protection to the ratepayers against having their money fooled away upon useless works". The Local Act under

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1. H. Austin - E.C., 7 October 1852.
2. H. Austin - E.C., 18 October 1852.

which the district had been governed hitherto had been quite inadequate, since it gave no power to provide a supply of water, while such powers as it did confer upon the Commissioners could not be used until they had liquidated their debt.⁽¹⁾

From Ormskirk came an account of the benefits which had resulted from the application of the Public Health Act to the town in 1850, an account which might have been paralleled in a score of other places:

"The population of the Town is 6,200, of whom one third at least are Irish, and the majority of the Inhabitants are poor Cottagers, crowded in Courts and Yards at the back of the principal Streets.

Previous to the Act, no Sewerage Works of any moment existed, nor was there any supply of Water. The Lodging Houses, especially those frequented by Irish labourers, were crowded to excess: fever was seldom absent from certain quarters of the Town, and a high rate of mortality existed.

Since the introduction of the Act a complete system of Sewerage and of Water Supply has been effected, for which we are largely indebted to the valuable services of Mr. Rawlinson. The Works have been in full operation since the summer of 1853, and already, out of an aggregate amount amount of 1,000 dwelling houses, 700 are thoroughly drained and supplied with Water, and it is worthy of remark that although in the onset a strong opposition was expressed against the Act, yet, in consequence of the mind of the Inhabitants becoming reconciled to its establishment, the private Works have with few exceptions been carried out voluntarily, and with hearty good will. Cottagers are furnished with an unlimited supply of good water at the rate of 1d. per Week. A more efficient supervision of the Lodging Houses had been obtained, of which there are 120 in the registry.

Without entering into the experience of other Towns, I am enabled to speak in behalf of myself and Colleagues (who

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1. "Report to Sanitary Committee, Worthing", by W.H. Dennett; pp. 4, 5, 7.

have done me the honour of electing me their Chairman since the introduction of the Act) that we have met with no undue interference from the General Board of Health, nor have we any accusations to bring against that body, of arbitrary treatment: on the contrary, our communications have been uniformly received with a spirit of fairness, and from the advice and co-operation afforded, a more efficient scheme of Works has been executed than otherwise would have been, had we been left to our own resources. Were we called upon to give evidence, our testimony would be unanimous, that in our case, the Public Health Act has proved to be a wise, salutary, useful, and benevolent provision of the Legislature".⁽¹⁾

Quiet progress such as this, however, attracted less attention in the press and House of Commons than the noisy resistance of some half dozen of the Local Boards; and the steady improvement of conditions, the cumulative effect of which must be awaited with patience over a long period, caught the eye less arrestingly than a sudden and startling catastrophe, such as the Croydon epidemic of 1852.

The outbreak at Croydon in the last months of 1852 was one of the earliest and most striking examples of a phenomenon which was to occur from time to time during the latter half of the century in the new residential districts of the growing towns, and which brought perplexity to sanitary reformers despite the stoutness of their confidence --- an explosion of enteric following the introduction of the new sewerage which it was claimed would put an end to the causes of zymotic disease. Croydon had been brought under the Public Health Act in August 1849, and by December 1851 combined works of drainage and water supply had been completed in the greater part of the town.

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1. J.A. Kershaw - Lord ? (Palmerston), 20 July 1854.

This was one of the testimonials received by the General Board at the time of the debates in 1854 which decided their fate. For other references, see Chapter 18.

Typhoid was apparently imported in September 1852, on the person of a villager from Oxted, twelve miles distant, where an epidemic was already raging. It spread along the lines of the new sewers, which, as Budd later explained in his classic thesis, acted as an extension of the diseased intestine of the typhoid sufferer; and, filtering through the cracks and leaks of a most defective pipe system, it contaminated the water supply. In a population of 16,000, there were by December 1852 1,800 cases of fever with a mortality of about 60, and numerous cases of diarrhoea and dysentery with a mortality of about 10.

Croydon was, though its respectable and well-housed citizens could not credit it, one of the most unhealthy places in the county. But the town had experienced nothing so dramatic as this epidemic of typhoid; an epidemic, moreover, which attacked chiefly members of the middle and upper classes, who had been the first to benefit from the new drainage and water system. It was noted that all the cases had occurred during and since the execution of the new works, and people reminded each other of the nuisance when the Local Board filled in the cesspools and open ditches throughout the town, so disturbing earth saturated with the accumulated filth of years. The outbreak, it was promptly alleged, must be due to the new pipe sewers and the activities of the Local Board.

The Board's investigators, Southwood Smith, Sutherland, Austin, and R.D. Grainger, were already in the field, when they were informed in January 1853 that the Government had appointed Dr. Neil Arnott and Thomas Page, an engineer from the Board of Works, as an independent Commission of Inquiry. The appointment reflected the general suspicion which now attached to the Board's every act, and Chadwick realised at once that at Croydon Gwydyr House and its works were in the dock. The Croydon Local Board, under its vigorous chairman, Cuthbert Johnson, was regarded as one of the most progressive and

successful of the General Board's satellite authorities. It was little more than a year before that Chadwick and Southwood Smith had attended a pleasant and heartening ceremony at the opening of the combined works. They had watched with benevolent approval as the Archbishop of Canterbury lifted the valve of the great steam engine which pumped water to the high level reservoir; and at a civic dinner in the evening Chadwick had gone into his familiar, well-loved statistics, and congratulated the householders of Croydon on obtaining the benefits of pure spring water and self-cleansing sewers for 5¹/₂d. a week.⁽¹⁾ It is easy to understand his annoyance and anxiety when Neil Arnott, one of his earliest allies, informed him that the report had been obliged "to speak of faults and failures in works which you had hoped were to be deemed perfect".⁽²⁾

Since both the Board and its critics accepted the prevailing pythogenic theory, the Croydon investigation developed into a hunt for stinks and an inquest on some very bad pipe laying.⁽³⁾ There were some brisk exchanges on the question whether unventilated pipe sewers or brick sewers of deposit were the most ill smelling, but the purity of the water supply, which was really to blame, was asserted by both sides. The investigators, in fact, were looking for the wrong thing and in the wrong place, and most of the points made would be

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1. "Times", 13 December 1851.
2. N. Arnott - E.C., 27 April 1853.
3. "Reports on an inquiry relative to prevalence of disease at Croydon, and to plan of sewerage". P.P. 1852 - 53, xcvi. 35. "Further Reports from Board of Health", *ibid.*, 221. "Statement of preliminary inquiry, etc.", *ibid.*, 117. "Report on state of works of drainage and sewerage, etc. (at Croydon) by Thomas Wicksteed", 1854, lxi. 347.

ruled out of court by a modern scientific inquiry. However, if the dialectical limitations of the contestants are accepted, the Board had much the better case. Before the introduction of the Public Health Act Croydon had been much like scores of other towns, with a cesspool in every garden and a well nearby. Vilely as the works had been carried out by the local contractors, they had reduced the sewer emanations and the potential foci of disease. Faults in the design and construction of the Croydon drains, however, were treated by the Government Commission as faults inherent in the system of tubular drainage, and Page was clearly of the opinion that four-inch and six-inch pipes were too delicate to stand up to the rough domestic habits of the lower classes. Chadwick in vain urged Arnott to visit Tottenham, Rugby, Hitchin, or some other place where such works were in successful operation, so that he might judge for himself whether the blunders committed at Croydon were unavoidable or not.⁽¹⁾ The Report of Arnott and Page, published in April 1853, indicted the pipe sewers and house drains of Croydon, and by implication censured as over-theoretical the engineering plans of the General Board. "Such events occurring in a place like Croydon, with an intelligent Local Board of honourable men eager to perform any amount of gratuitous service which promised advantage to their town, and who were near the Central Board in London, for easy conferences, prove the desirable securities for the efficient performance of such works are not yet possessed and further show that some of the anticipated advantages of the pipes have not been obtained, and some of the drawbacks connected with the employment of them had not been foreseen".⁽²⁾

Chadwick spent some months in preparing, in collaboration with the chairman of the Local Board, a massive counter attack, but his reply to the allegations of Page and Arnott remains in

1. E.C. - N. Arnott, 14 March and 26 March 1853.
2. p. 7. P.P. 1852 - 53, xcvi. 35.

wordy and argumentative fragments. For once Shaftesbury refused to follow his truculent colleague into the battle. Chadwick's report was so strongly personal in tone, he wrote, that "if sent forth as I have before me in M.S.", it "would be absolutely the ruin of the Board". "You, I, and the Doctor, we three, should by our own act and deed, be cast down, bound hand and foot, into the burning fiery furnace", (1) The Board's best defence was slow to come, but unanswerable when it came. Five years later the Chairman of the Local Board was able to send Chadwick the quarterly tables of mortality for Croydon with the comment, "You will see that the sanitary condition of the Parish for the year 1857 has been singularly good --- and that instead of our Deaths having been 22 per thousand per annum as they have averaged for the nine years ending Christmas 1856, they have only been 15.92 per thousand per annum. And as Dr. Farr in his Tables called 17 per thousand per annum the 0 of his Scale of Insalubrity we may rejoice at being thus below his Zero As to returning to Cesspools all classes now know what a comfort and advantage it is to be free from the Nuisance of Cesspools and would not return to the system if it were possible to avoid doing so". (2)

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1. Shaftesbury - E.C., 15 October 1853.
2. William Drummond - E.C., 10 May 1853.

CHAPTER 16.

REACTION, 1852 - 1853.

It was in 1852 that the current of events turned decisively against the men and principles of Gwydyr House. For over three years the Board of Health had been spreading the doctrine that, in certain spheres, the play of competition should be checked in the interests of society, and that in those spheres enterprise, even if it remained in private hands, should at all events be planned with an eye to economy and the public benefit. Was Chadwick an enemy of private enterprise and free competition? Was he a socialist? Chadwick strenuously defended himself against so terrible a charge. But it was surely possible to retain those principles, to which English capitalism ascribed its rude health, without falling into the moral and economic quagmire of Laissez faire. When he heard it objected, for example, that "in this country cemeteries like everything else ought to be established by private enterprise, and checked by free competition", he would reply "that the Interments Act goes on the principle of inviting private enterprise and bringing to bear free competition, so far from tending to supersede these wholesome and eminently English principles, the framers of the act only want to bring those principles to bear for instead of against the public interest. For this purpose a district is marked out, and private enterprise is invited to compete freely by open tenders to perform the requisite service, according to prescribed regulations, with due solemnity and greatly improved arrangements, at a scale of charges based on one capital only, and one management, and one set of officers only".⁽¹⁾ But this

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1. MS fragment, n.d. In a letter to Russell, 4 November 1851,
(Continued on next page)

disarming explanation failed to carry conviction to the capitalists to whom it was addressed, who saw that if they

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(Continued from previous page) Chadwick was at pains to stress that the method of public contract would leave ample elbow-room for legitimate private enterprise:

"In respect to the Metropolitan Interments Act, the delay and the embarrassment created by acting on views without reference to the evidence on which the measure was adopted by Parliament threatens to be most disastrous.

I hear it stated for example that strong objections are entertained to the Government doing works of the description of any of those in question.

Now it has never been proposed that anything should be done by Government, and most certainly not directly or indirectly by a department occupied or constituted like the Treasury, nor by the General Board of Health, nor by the proposed commission for the works of drainage and water supply in any such sense as implied by the objections.

In respect to the Interments Act, the examples which were cited, those of Paris, and those in which we should to the uttermost act, would be to do as little as possible in detail ourselves and everything by open contract, for the execution of works and arrangements publicly notified and described. The only dealing with details would be to prepare properly for their transference to others by the contract system.

In respect to the drainage and water works we have been labouring to impress the necessity of having all the works not only executed on contract, but maintained in good working condition on contract for long terms of years. At the Sewers Commission I proposed the construction of a set of tile kilns to make drain tiles but it was to break through a combination of traders who were exacting between two and three hundred per cent. profit, and it was to ascertain and prove at what price the articles really could be made and to obtain data for the better regulation of contracts, and opening up a wide trading competition.

The Commission for the Metropolitan Works which we proposed would be a commission to direct examinations and reports on works and the preparation of plans, and to advertise competitions for them, and to award the contracts, and afterwards audit or hear public complaints as to their execution. Under the arrangements we proposed the works might be executed by contractors of public eminence such as Messrs. Fox and Henderson, and the Treasury or the Government have as little to do with them, or responsibility, as they have in respect to the works under the Crown Commission for the consolidation of the Metropolitan Road Trust

accepted Chadwick's reasoning they could no longer drift passively under the influence of the push and pull of profit, but must put themselves under the dictates of a conscious social purpose. If they could find it possible to breathe the rarefied sanitary atmosphere of Gwydyr House --- if they were prepared to allow their profits to be limited, their budgets scrutinised, their activities regulated, and the minimal standards of their service defined --- the companies might still remain. But if not, if they declined to bind themselves to public service by contract, then their work could be done as well, or better, by civil servants of the Chadwick school or by local authorities tutored by his Inspectors. The outline of Chadwick's ideal state was becoming clearer: a state where collective utilities, such as water, gas, and means of communication, were owned by the public, though they might be constructed and maintained by contract; where charges were fixed not with an eye to shareholders' dividends, but merely to defray the cost of service; where units of administration were cut to the size calculated to give the best technical and economic results.

Against this conception there set in during 1852 a powerful and many-sided reaction. It was the reaction of local authorities, wary of re-arrangements of ancient boundaries and of encroachments on their traditional independence; of governing oligarchies, who saw in the extension of the central power an end to their patronage and perquisites; of property owners who reckoned that the fever tax would bear less heavily upon them than the cost of new drains; of engineers whose professional standing and rules of practice were endangered by the Board's Inspectors, and of Parliamentary agents whose fees were threatened by the expeditious procedure of the Provisional Order. It was the reaction of commercial companies, who saw in the advance of gas and water socialism an invasion of the sphere of profit, and of manufacturers who found that sanitary regulations would add to their costs and close to them modes of

working that had been profitable in the past. "There was no end to such kind of legislation", cried one, "and, if persevered in, there might in time, be a Bill to prevent expectoration in the streets".⁽¹⁾ It was the reaction, in a more general sense, of business men whose interests were not directly threatened, but who had more confidence in their own administrative ability than in that of Government with its eighteenth century traditions of aristocratic corruption and leisureliness. Criticisms of the Board's measures were frequently made in terms from the political vocabulary of a passing age, when every official was a place holder, and every place a piece of patronage to be dispensed by the Secretary to the Treasury. Not till the introduction of competitive examinations for the Civil Service was the sting taken out of this argument. All

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1. Hansard, vol. 107, p. 195, 11 July 1849 (Foster).
A letter from Chadwick to R.A. Slaney, 17 May 1852, describes some of the sources of opposition to the Board:
"Let me pray of you when attacks are made upon the Board that you will not apologise for it: because from your known kindness and zeal for sanitary measures, the smallest admission of fault will from you be deemed equivalent to pleading guilty to a crime. I assure you if you had been with us, and heard the evidence you could have done no other than as we have, and would probably have gone further than we have done. We cannot, in duty, conciliate the interests of the shareholders of bad water Companies, who are spread throughout the public offices: nor can we in duty promote the interests of the shareholders of bankrupt cemetery Companies: nor do other than condemn wasteful works which aggravate the evils intended to be remedied: and set our faces against jobs. By the economy of our reports and the provisional orders for the application of the act to provincial towns at one tenth the charge of local Acts, we necessarily rouse the hostility of attorneys and of all the Parliamentary counsel, and of all the Parliamentary agents, and of all the agents of Parliamentary agents, no small body in Parliament: - these bodies, and their hatreds, are powerful, and as steady in their opposition as their interests: - while the public support we get is casual and feeble, and the interests, in the improvement of the physical condition of the population diffused and weak. Unless we have another pestilence, the sordid interests opposed to improvement will prevail and effective sanitary measures must be left to other times and other men".

these groups had specific and conscious motives for resisting the Board. There were others who shouted with them, whose motives were less explicit, whose hatred of Gwydyr House could hardly be defined in words; who were moved obscurely to oppose to its hard utilitarianism a sentimental clinging to old ways, and to meet its brisk efficiency with the inertia of comfort-loving, "groove-~~routine~~-going" men. Long ago Lord John Russell had warned Chadwick, after reading a memorandum by him on prison dietaries: "There is one thing always to be kept in mind. We ~~are endeavouring to improve our institutions. Hitherto they~~ are endeavouring to improve our institutions. Hitherto they have been lax, careless, wasteful, injudicious in an extreme; but the country governed itself, and was blind to its own faults. We are busy in introducing system, method, science, economy, regularity, and discipline. But we must beware not to lose the co-operation of the country. They will not bear a Prussian Minister, to regulate their domestic affairs. So that some faults must be indulged for the sake of carrying improvement in the mass".⁽¹⁾

It was by coincidence merely that the attack developed during the brief régime of the Derby Government. Whatever party had been in power --- Whigs or Tories, or Radicals for that matter -- the principles of Gwydyr House were offensive to them all; and any Government, not stiffened by the courage of conviction which moved Chadwick and Shaftesbury and Southwood Smith, would have hesitated to defend a group of men who, through bad fortune and misunderstanding, through the misrepresentations of others and their own faulty judgment, had long overdrawn the credit of public confidence which had been

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1. Russell - E.C., 9 October 1836.

extended to them under the terrors of an epidemic.

In Gwydyr House there was, indeed, a gleam of hope when the Tories ousted the Whigs. Wood, Hayter, and G.O. Lewis must go. Above all, it meant a change at the Woods and Forests, and surely no new President could show less goodwill and understanding than the outgoing Seymour. Perhaps, thought Chadwick, the Derby Government could be persuaded to go into the question of the Treasury's constitutional right to exercise a dispensing power and scrap an Act which Parliament had approved but which the Treasury regarded with disfavour. These hopes were soon disappointed. Lord John Manners, the Board's new chief, though he did not display the rancour of Lord Seymour, made it plain that he intended to do no more than carry out the plans which his predecessor had been maturing.

On April 29th 1852 Shaftesbury moved a resolution in the Lords, "That the sanitary state of the Metropolis requires the immediate interposition of Her Majesty's Government".⁽¹⁾ It was a test motion, designed to draw the Tory Government into the open, to discover if they had any intention of taking action against the reviving Companies. These, of course, were "truisms", replied Derby, when Shaftesbury had concluded his depressing narrative.

"Now, if it were a tabula rasa that Parliament had to deal with --- if the vast interests of existing companies had not to be consulted, which had been found a practical difficulty in the way of all legislation that had been attempted --- he had no doubt it would be better and more efficacious that there should be one single authority charged with the administration of the water and the removal of all offensive matter, than to

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1. Hansard, vol. 120, pp. 1283 - 1293. Derby had refused to consider the original version of Shaftesbury's resolution -- "an Address to the Crown, praying Her Majesty to take steps to permit the metropolis to be no longer excluded from the advantages of the General Board of Health" --- on the ground that it would have implied that obstacles were being thrown by the Government in the way of Parliament.

vest the separate powers of water supply and sewerage in separate bodies, thereby losing the unity of action that appertained to a single authority. But there was great difficulty in deciding what that central authority should be. The practice of Continental Governments might be quoted; but other Governments were much more free to act for the benefit of the population than a Government subject to popular influences and control, and which had to study not only the interests, but the views and feelings, of those for whom they legislated. He did not dispute the advantages of cleanliness, and he agreed with the most reverend Prelate (Archbishop of Canterbury) that cleanliness and decency were the handmaids of morality and religion. But it was not by Act of Parliament that you could compel people to be moral, decent, or clean; and in many cases legislation to enforce those objects would be opposed by the persons for whose real and permanent interests they were legislating.

(Shaftesbury: No, no!)"(1)

In a speech of remarkable frankness Derby thus urged the great interests of the water companies in opposition to the rights of the metropolitan population, and then went on to magnify the objectionable attributes of centralisation, to discount the popular demand for sanitary improvements, to disparage Shaftesbury's statistics, and to assert in conclusion that beyond a certain point the Government could not go in interfering with the internal affairs of the people --- altogether, in fact, to act the part of a Prime Minister who was casting round to find justification for legislative inaction. The speech, Chadwick believed, was based on the information of subordinate officers in the Treasury, who were probably themselves informed by shareholders in the companies; "and the suggestion of Lord Carlisle that he Lord Derby should look into the matter himself, is a declaration that he will find it to be

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1. Hansard, vol. 120, p. 1305.

otherwise than as he has been told: as he certainly will, if he really do look into it".⁽¹⁾ The indignation of the reformers was well voiced by John Roberton, an old ally from the days of the battle over the Summit Tunnel. "Is not the sanitary state of the stables of the Gentry minded?" he demanded, "Don't their racers get plenty of pure water? have not they well ventilated stables and room enough to rest their bodies and stretch their limbs? Doubtless they have: and when the mass of mankind comes to be as much valued as racers My Lords and others will help on Sanitary Reform".⁽²⁾

A few weeks later Lord John Manners introduced a Bill to repeal the Interments Act of 1850. The proper remedy, he observed, was not the principle of monopoly and centralisation, which had failed to work despite the "great and almost extravagant powers" confided to the Board of Health, but the "more constitutional, simple, and less objectionable method, by which from time immemorial the parochial authorities had been entrusted with the burial of the dead".⁽³⁾ Thus, by his Metropolitan Burials Bill, the Secretary of State was empowered to close any burial grounds proved to be obnoxious, and the parishes were enabled, singly or in combination, to provide new grounds or to contract with the trading cemeteries. In the same month (June 1852) a Bill, empowering the London Necropolis and National Mausoleum Company to purchase 2,000 acres of Woking Common on which to lay out a cemetery, was approved by the Commons, after the chairman of the Select Committee (Baines) had remarked that it was admitted by all parties that any powers possessed by the Board of Health "had been tried without effect, and that, if this Bill were not carried, it would be perfectly hopeless to expect any remedy from the Board of Health".⁽⁴⁾ Lord John Manners agreed, welcoming a measure which appeared

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1. E.C. - ? (probably Delane), 29 April 1852.
2. J. Roberton - E.C., 3 May 1852.
3. Hansard, vol. 122, pp. 872, 874, 17 June 1852.
4. Hansard, vol. 121, p. 892, 21 May 1852.

calculated to remove the evils now complained of; and his approval was echoed by Lord Seymour.

"It is now with the Metropolitan Interments measure", Chadwick reflected sorrowfully, "worse than it would have been with the Metropolitan police measure; if after it had been determined upon by Parliament upon a technical difficulty as to raising the money, the measure had a check and upon that check an outcry had been raised by St. Pancras and a small minority of parishes, and as if upon that small outcry, Sir Robert had confessed that the Government had already too much to do that the larger measure was impracticable, and consented to allow the parishes to have local acts for a nightly watch of their own. It is probable the confession would have had no remonstrants and he would have been applauded for the moderation and candour of his views".⁽¹⁾ Lord John Manners, he thought, could not have read the evidence of the trial and failure of the very measures which he now proposed. Powers were to be given to the parishes, the parties who had brought the evil to its height and had obstinately resisted amendment. Under the rule of the vestrymen of Marylebone and St. Pancras, the Officer of Health, on whom pivoted the whole arrangements for advice and regulation, could find no place. It was illusory to expect parishes, or even Unions, which could never be brought to combine to establish district schools, to co-operate of their own accord to acquire a cemetery, a possibility "as remote as their union to construct of themselves a locomotive".⁽²⁾ One of the parish clergy, he heard, had stated that "a good and sufficient chapel" for a parochial cemetery could be built of rubble for £1,000.⁽³⁾ Rubble! What a falling off from the architectural splendour of Chadwick's National Cemetery! As for the Necropolis Bill, it was the scheme "of vulgar projectors and a vulgar architect", a building speculation disguised as a public measure, which included amongst its

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1. E.C. - ? , 2 February 1852.

2. E.C. - Lord John Russell, n.d.

3. E.C. - Bishop of London, 31 January 1852.

proposals pit burial for paupers, the use of railway arches as mortuaries, and the removal of corpses in the common horse boxes of the railway.⁽¹⁾ Yet the Government had given the Bill their benediction --- was it because "the present Solicitor General Sir Richard Bethel was deeply engaged in this speculation, his brother in law Mr. Abrahams being the architect?"⁽²⁾

In the course of the debates on the interment question a joint attack was delivered by Lord Seymour and the metropolitan members on the principles, constitution, and personnel of the Board of Health. Even the inoffensive Southwood Smith did not escape, and one member asked why he should continue to draw his salary now that the Act under which he was appointed had been repealed; all he had done was to go to Paris and assist in the writing of ten thousand letters.⁽³⁾

"There was considerable inconvenience in the constitution of the Board itself", Lord Seymour told the Commons on June 21st 1852. "Although he, when President of the Board, was responsible to Parliament for the proceedings of that Board, yet when he attended the Board and made a proposal, it was seldom he could get a seconder, for Mr. Chadwick and Dr. Southwood Smith, forming the majority of the Board, carried the question against him. He had told the Government that it was impossible to go on in that way. He thought it would be far better if some Lord of the Treasury were to assist Mr. Chadwick, so that the Government might have some possibility of controlling the Board, and preventing the inconvenience and delay of business which now repeatedly occurred".⁽⁴⁾

The impression Seymour conveyed of himself playing the Dormouse to Chadwick's Mad Hatter and Southwood Smith's March Hare was quite unfounded. It was not the first time in his

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1. "Objections to the Necropolis Bill", MS, n.d.
2. E.C. - ? (Russell), n.d.
3. T. Duncombe: Hansard, vol. 122, p. 1032, 21 June 1852.
4. *ibid.*, p. 1081.

relations with the Board of Health that he had revealed that he possessed an ingeniously constructive memory. He now drew for an appreciative House a picture of himself struggling with two sullenly stubborn colleagues, and finally giving up attendance at a Board where he could only make a useless gesture of protest. "This statement", wrote Shaftesbury blandly, "must have been caused by a confusion of the doings of our Board with some other Surely you have forgotten that out of the 237 regular Boards, held during your tenure of office, you attended but three --- to these may be added two or three (not more) visits of a few minutes each --- that on one only was any resistance offered, and that was by myself, not by Dr. Smith or Mr. Chadwick".⁽¹⁾ That occasion was, of course, on January 30th 1851, when Seymour had startled the Board by proposing that they should take over two of the cemeteries and enter into competition with the remainder of the trading Companies; and it was the Board not Seymour whose representations had finally prevailed with the Treasury, short-lived though the victory was.

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1. Shaftesbury - Seymour, 22 June 1852. The following memorandum was apparently drawn up at this date:

"Abstract of Attendances at Board Meetings."

Year	Number of Board Meetings	Earl of Carl- isle.	Lord Sey- mour	Lord John Mann- ers.	Earl of Shaft- esbury	E.C.	S.Smith
1848	74	3	-	-	22	71	71
1849	226	47	-	-	172	217	211
1850	216	8	-	-	147	214	162
1851	237	-	3	-	101	232	225
1852	124	-	-	7	46	124	124
(to 22 June inclusive)							
	877	58	3	7	488	858	793

Shaftesbury, who was annoyed at the suggestion implied in Seymour's speech that only Chadwick and the Doctor conducted the business, pointed out with some acerbity that he had been absent from one only of the Boards at which Seymour had made an appearance, and that "out of the whole number 237, held during your period of office, I attended 101".

"The words reported in the Times are not quite correct", Seymour hastened to explain. "What I did say was to this effect, that though as President of the Board I was responsible to the Government and to Parliament for the proceedings of the Board, yet I remembered at the end of the year 1850 or at the beginning of 1851 attending the Board and making a proposal to the Board which was not seconded and which consequently dropped I added that finding myself in this position disinclined me attending the Board, even if I had time. I do not believe that I stated that I met with frequent opposition at the Board, but I may have said that my views were frequently opposed to those of the Board, and I said I considered the constitution of the Board defective as an executive department, because differences, which were honestly entertained on both sides, led to delay and repeated correspondence with the Treasury".⁽¹⁾

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1. Seymour - Shaftesbury, 24 June 1852. Cf. E.C. - Lord John Manners, 23 June 1852:

"On that occasion the only one recorded or of which I am aware, in which a proposition of Lord Seymour was dissented from at the Board, I have not the slightest remembrance of his having been told that his proposition had not been seconded; neither have my colleagues nor the secretaries any recollection of anything of the kind having occurred; and they must have heard it, and remembered it had it taken place; but the conditions represented, viz. of myself and Dr. Southwood Smith being the only members present besides Lord Seymour, not having taken place, render the whole impression on which such a statement can have been made to the House an entirely erroneous one. The recollection of Dr. Southwood Smith and of the Secretaries is equally confident as to every other occasion: that nothing of the kind ever took place.

In fact I scarcely recollect a suggestion or a proposal or a request made at the Board by Lord Seymour, other than

(Continued on next page)

Forwarding copies of the letters to Lord Carlisle, Chadwick urged that before the question arose of renewing the Board's term of office, "we ought to have in your house a Committee of inquiry, before which any charges or fault finding of any sort may be investigated and that the measures may not be left to the mercy of the Treasury".⁽¹⁾ But Seymour was never confronted in public, and he never modified the original version of his charge against his former colleagues, which was to be revived again as a weapon in the final grand assault on the Board of Health.

Meanwhile, on the water question, the Government had with equal decision turned its back on Gwydyr House. Shortly before the fall of the Whigs, Lord Seymour introduced a Bill for metropolitan water supply. He did not believe it possible, he declared, for a Government commission to superintend such a function; to create a municipal corporation, however, would mean delay (and it would probably be inefficient, in any case); a combination of the companies, again, might be the means to economy, but it was not Parliament's duty to require it.⁽²⁾ Thus, one by one, he disposed of the schemes of Chadwick, the parochialists, and Sir William Clay, leaving as the most practicable solution --- since securities must be given to the consumer which would not entail any undue exertion by the Government --- the proposal that the companies should be left as they were, subject only to certain conditions as to quality, distribution, and rate of charge. This Bill, which no less clearly represented the views of Sir John Johnstone than the Bill of the previous year represented those of Sir William Clay, was inherited a month later by Lord John Manners, who promptly sent it, with a batch of other Bills from the water Companies, to a Select Committee. Here, after two months at a cost of

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(Continued from previous page) his proposal in respect to the interments that was not complied with"

1. E.C. - Carlisle, 26 June 1852.

2. Hansard, vol. 119, pp. 213 - 219, 6 February 1852.

£1,000 a day in retainers for a score of counsel and parliamentary agents, the Government Bill was hammered into a shape which the Companies found possible to accept. On June 17th a surprised House was requested to go into Committee on the measure, the Government having taken the Second Reading at so late an hour that the principles of the Bill had not so far come under discussion.⁽¹⁾ Both Mowatt and Lord Ebrington delivered damaging attacks upon the Bill, but it mustered ample support in a House which included 86 shareholders of the water companies;⁽²⁾ and eventually it reached the Lords so late in the session, as Shaftesbury remarked, that they had to pass it without knowing more of it than if it were a Chaldee manuscript.⁽³⁾

The Metropolitan Water Supply Act of 1852⁽⁴⁾ obliged those companies which drew their water from the Thames to remove their intakes to some place above Teddington Lock, beyond the influence of the tide which daily agitated and re-agitated the sewage of the capital. The companies were given till August 31st, 1855 (the Chelsea Company till August 31st 1856) to do this. They were also obliged to cover in their reservoirs, and to filter all water intended for domestic use. And within five years a constant supply was to be laid on by every company.

The Government had been as gentle as possible in putting the bit on the companies. Lord Ebrington alleged that the Select Committee had refused to hear his evidence, and that the truth had emerged only when the companies' experts disagreed amongst themselves.⁽⁵⁾ The schedule of uniform rates and charges, which Sir John Johnstone had said would amount to a confiscation of the companies' property, had been quietly dropped, together with the clauses which were intended to compel competition between the companies. To Chadwick this second

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1. Hansard, vol. 122, pp. 839 - 872, 17 June 1852.
2. This is the figure given by Joseph Hume, Hansard, vol. 120, p. 84, 25 March 1852.
3. Hansard, vol. 122, p. 1267, 24 June 1852.
4. 15 & 16 Vict. c. 84.
5. Hansard, vol. 122, p. 856, 17 June 1852.

Home Office Bill was "marked by an offhand ignorant and supercilious contempt for the necessities of the population and the investigations as to the means of supplying them", ⁽¹⁾ and it appeared less objectionable than the first in one respect only: it did not guarantee to the companies a monopoly of bad supplies at three times the expense for which good supplies could be obtained *de novo*. But under its provisions water supply was still regarded as a separate problem from drainage; extra charges for baths and water closets still remained as taxes on health and decency; and householders were still expected to provide their own connections with the main. The water of the Surrey springs had once more been ignored, and though some of the companies were obliged to seek new intakes, their source was still the Thames, hard with lime and polluted with surface washings, which, from Oxford downwards, was the great sewer of the country through which it ran.

It is hardly possible, after reading the story of Chadwick's struggle to give London a wholesome and universal water supply, not to conclude that a splendid chance had been missed. If his recommendations had been acted upon, and the companies had been bought out in 1851, the ratepayers of London would have saved themselves fifty years of discomfort and ill health, and some £40,000,000 of compensation which in 1902 was thrown as a back-breaking burden of debt on the Metropolitan Water Board. The solution of the "practical men", of Seymour and Wood, of Derby and Manners, proved no solution at all. Fourteen years later, when cholera raged for twenty-three weeks in London and killed 5,548, it was revealed that the East London Water Company continued, in contravention of the fourth section of the 1852 Act, to distribute water which had not been passed through filter beds; and though the provisions of the 1852 measure were repeated and strengthened by the Metropolis Water

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1. "Notes of heads of remonstrance on the Metropolitan Water Bill", MS, n.d.

Act of 1871, it was not till 1899 that Londoners were receiving a constant supply.

The history of the metropolitan water companies affords the classic example of a great vested interest, rooted so toughly among the governing classes, with its friends in the press and the departments of State, its spokesmen in the Government, and its silent battalions of shareholders in the House of Commons, that it was enabled to hold out for generations in the face of all the evidence, until the mounting exasperation of the public forced it to a capitulation --- on its own terms. How many politicians and civil servants, Chadwick wondered, were drawing dividends and directors' fees from works which the Board of Health had condemned as inefficient and unhealthy? "The new Secretary at War: the Right Hon. R. Vernon Smith who brought forward one of the New River Company's bills: inherited shares in it. His father was the chairman of the New River Company, and really wrote the report of one of the Committees on the water question. The present solicitor to the Treasury Mr. Reynolds is a Director of the West Middlesex Water Company. Several clerks of the House of Commons I am told are holders of water shares. The public offices are beset with them, and with shareholders in other companies."⁽¹⁾ In Parliament the Board's measures were discussed in "an atmosphere of shareholders" in similar if not the same sort of property, and the aura of influence of a great body of capital extended far beyond the circle of those with direct pecuniary interests. "The Minister may be told this is great property, "capital" invested for an important public object; you cannot sacrifice it in families; the House will not support you. You can never carry such a measure".⁽²⁾ The

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1. E.C. -G. Goldsmith (editor of the "Globe"), 7 February 1852. Cf. also "Notes of heads of remonstrance on the Metropolitan Water Bill", MS, n.d., apparently intended to be presented to Lord John Russell by the Sanitary Association, in which these same examples occur.
2. E.C. - ? (J.P. Delane), n.d.

railways in Germany, he heard, charged little more than one-third of the English fares, and yet returned a profit of six per cent., the reason being that they were state-owned and were free from the influence of shareholders in the chambers and Government departments. How much better than in England where it was thought no disgrace for shareholders like Sir William Clay or Sir John Johnstone to vote on questions in which they had a financial interest!⁽¹⁾

He detected sinister figures like these behind every interest disturbed by the Board. Of the two cemetery cemeteries against which they had first taken proceedings, they found "that the chairman of one was the father of one under secretary of state, and that the chairman of another was the uncle of another under secretary of state". Chadwick was indignant, therefore, but not surprised, when he discovered that these companies "had information long before we received it, that a hostile course would be taken against us".⁽²⁾ Then there were the great slum landlords. The Marquis of Salisbury, the Lord Privy Seal, opposed the application of the Public Health Act to Hertford, where whole rows of houses belonging to him were without a single privy.⁽³⁾ Lord Lonsdale, ground landlord of Whitehaven, successfully resisted the introduction of the Act into the town, which it was estimated would cost £22,000 to put in a sound sanitary condition; though it was said that he found double this amount to back an Opera Company. In the closing months of 1852 these two noblemen showed themselves as the most active opponents of the Board in the upper House. The most notable example of another type of critic was Toulmin Smith, the theorist of Local Self-Government and defender of the vestry and court leet, who thrust himself forward as the spokesman of various parties opposed to the Board. The Corporation of the City of London had spent £300 in circulating his pamphlets. The Town Commissioners of Bristol had paid him £80 for lecturing

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1. E.C. - Goldsmith, 7 February 1852.
2. E.C. - ? (probably probably Russell), n.d.
3. E.C. - J.T. Delane, 1 November 1851.

against the Public Health Act. He had acted as counsel for the Hampstead Water Company before the 1851 Committee, and had been briefed to promote a Local Act for Birmingham to counter the application for the Public Health Act. "As it stands", Chadwick summed it up, "we have retained advocates assuming the guise of impartial judges in the press; and in Parliament, actual shareholders and the agents of shareholders, appearing in the guise of impartial public representatives; and of public officers, canvassing as from a sense of duty".⁽¹⁾

The defeat of the Derby Government in the elections of the summer of 1852 caused little rejoicing in Gwydyr House.

"I quietly dread the effect of changes, and negotiations, and office hunting and leaving, at this particular juncture", observed Shaftesbury. "We have not a moment to lose. The next three months are, 'I speak as a man', inestimably valuable; and if we let slip that time for preparation, we may be utterly ruined.

Yet what shall we gain by a return to our old Masters? Seymour will be no better than John Manners, as John Manners proved to be no better than Seymour. D'Israeli, to all intents and purposes, is equal to Charles Wood; and Hamilton is vastly superior to Hayter. Walpole, to be sure, and Salisbury and Lonsdale are sad specimens of knowledge and will in sanitary matters. Yet, all I have said, are nearly alike. Public men know nothing, want to know nothing, hate to be told anything, which does not openly and directly affect their political position and safety".⁽²⁾

Shaftesbury was at the time (July - August 1852) on the continent, recuperating from the effects of overstrain, and his letters to Chadwick uncover the frustration and bitterness left by the disasters of the session. "It is needless to tell you of the heat here", he wrote from Bms, "for I understand the

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1. E.C. - ? , 28 July 1851.

2. Shaftesbury - E.C., 18 July 1852.

weather is fiercer, if possible, in London I have sat and pictured, to myself, the sufferings of our clients in their crowded alleys, Courts, Lanes, and houses of the Metropolis, with poisonous and deadly water, until I have become more sorrowful than, perhaps, they are themselves! I cannot well describe to you the pain of my disappointment, actual and prospective; for I see that our enemies, these "Sons of Zervinat" will prove too strong for us. It comes between me and my "cure" (this is the local term), I do not receive half as much benefit as I should do, were our hopes accomplished ..."(1)

It was with appreciative envy that Chadwick, and still more Shaftesbury, watched the progress of Louis Napoleon's social reforms, with their swift clean strokes of unrestricted, beneficent power. He was "laying about him furiously in Paris", noted Shaftesbury, where "he has proclaimed war against all courts, alleys, lanes, and culs de sacs". "The Galignani of yesterday contained a programme of improvements which made my hair stand on end. Every working man that lives will on seeing these results shout "vive la Despotisme"; "à bas les gouvernements libres!" Why our Vestries, Boards of Guardians, paving Boards, and all the apparatus of what is called "local" and "Self" government, have only been so many obstacles in the way of physical and Social amelioration." (2)

When Emil Chevalier came as a special Commissioner in August 1852 to examine the lodging houses and model dwellings of London, Chadwick sent him, in the company of Count Cavour, on a tour of some of the worst districts. "They agreed that your Lodging house regulation Act was working very well", he wrote to Shaftesbury, "will report very favourably of the model dwelling houses, but they were in horrors at the condition of the population in the worst districts and at the neglect".(3)

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1. Shaftesbury - E.C., 16 July 1852.
2. Shaftesbury - E.C., 18 July 1852.
3. E.C. - Shaftesbury, 7 August 1852.

"Your letter filled me with grief and shame", replied Shaftesbury. "'The thing", as old Job said, "that I greatly feared, is come upon me"; and the Sin and sensuality of Protestant, free, and wealthy England towards the mass of the civil population, will be shown up to the whole world, and then contrasted with the paternal care of Papist, despotic, impoverished France!

To avert such an issue, and to stand well in a day of account, you and I and many others have laboured long, but have been reluctantly and feebly backed in the beginning; and we shall be nobly and angrily opposed in the end.

This day I have been to Frankfort on business --- the City is broad, clean, and very handsome --- but the Stinks (whence they come I know not) were prodigious. Cesspool-breezes were blowing from all points of the Compass; and I felt, I regret to say, something akin to a malicious comfort that some other places, besides London, had their own abominations".⁽¹⁾

Barnstaple rejected Lord Ebrington, "our only stay in the House of Commons"⁽²⁾, in the elections of 1852, hatred of the Public Health Act being brought to bear in the campaign in aid of the customary weapons of bribery and treating.⁽³⁾ Looking over the new Government, Chadwick could see only one face which seemed to promise hope and a rescue from frustration; it was that of Palmerston, whose caustic marginalia and insolent little notes about the lethargy of clerks in general and of the clerks who served Palmerston in particular were said to have kept the sluggish patricians of the Foreign Office in a state of unexampled activity. Here was a fellow-warrior against cant and routine, and one, moreover, related by marriage to Lord Shaftesbury, for whom he had a curious respect. Palmerston

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1. Shaftesbury - E.C., 12 August 1852.
2. Shaftesbury - E.C., 16 July 1852.
3. Earl Fortescue - E.C., 13 November 1853.

for his part listened more sympathetically than his predecessors at the Home Office to the theories of the General Board; and at a public dinner at Lewes, after Lord Ducie had lamented the shortage of farm manures, he delivered, to the massive amusement of the "Times", an impromptu and gallant speech on the untapped treasures of town guano, based apparently on some vague recollections of the Chadwickian thesis.⁽¹⁾

The new President of the Board was not Lord Seymour, as Shaftesbury had feared it would be, but Sir William Molesworth, yet another President who preferred to preside at a distance, and to act in embarrassing independence without consultation with his colleagues. His first move was to declare that he would not insert in a Confirming Bill any town where a majority of the ratepayers appeared to be against it. This, Chadwick pointed out, amounted to a reversal of the provision in the Public Health Act giving the Board the power to intervene in any place proved to suffer from excessive mortality; it amounted, moreover, to an abandonment of the common law right of every subject to pure air and the means of healthy existence. "It has not been given to any local majority, to determine that a minority or even a single individual, shall be deprived of them and shall die. Such a power would be a sovereign power, and an arbitrary one; it would be giving to the local bodies the right if not of the gallows literally of the pit"⁽²⁾

So 1852 closed, with the Board brooding over two major defeats in the metropolis, with Shaftesbury low in spirits and Chadwick beginning to sound his friends about the possibilities of employment in the Home Office.⁽³⁾ When Robert Rawlinson read a paper on town drainage at the Institute of Civil

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1. "Times", 19 July 1852.
2. E.C. - Lord John Russell, n.d. (1851).
3. Sending S. Redgrave a copy of the Minutes on house and town drainage, Chadwick remarked that he did not know but that "they may not tend towards the close of my labours in sanitary works"; and he concluded by asking, probably with an eye to the future, for a talk on police matters. (7 Oct. 1852)

Engineers in December he did not get a single supporter.⁽¹⁾
 The mention of Chadwick's name one day in the Court of Common Council precipitated "a perfect outburst of fury".⁽²⁾ There were few men alive, he thought, "so little loved and so intensely hated; and whose official position is so precarious".⁽³⁾

Acceptance of this unwelcome truth, and honest bewilderment that it should be so, that the name of Chadwick, associated as it was with great measures for the improvement of health and morals, should so grate upon the public ear --- these are the key-notes of a letter of this period, addressed to an American relative, in which he reflects upon his career in the public service, and describes his preparations for a strategic retreat:

"Our Board is terminable next year; powerful parties are labouring to prevent its renewal, and most probably they will prevent its renewal under any conditions on which I can be employed. The new elections have lost us one powerful friend, and have added one or two very certain enemies.

Under these circumstances I should be obliged, if you would warn my father's family of the uncertainty of the continuance of any assistance from me. I have felt myself obliged to give similar warnings here.

I have long considered it prudent to reduce my establishment and expenditure; but I have never got a clear months time to look about me and to do the work, which if done at all must be done by myself for I get no assistance on which I can depend I am moreover much observed by the enemies of our measures and it is as hazardous as changing the position of an outnumbered army in the presence of an enemy: and I have felt that it is highly dangerous to give an appearance of a retreat, or display want of confidence in the cause.

I write to you fully because you are the only one

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1. E.C. - F.O. Ward, 15 December 1852.

2. E.C. - Andrew Boardman, n.d.

3. *ibid.*

related to me who are likely to take a public as well as private interest in my work.

There is a *prima facie* case against me of imprudence, and mismeasurement of forces in bringing against myself personally and the cause, so many enemies, but I knowingly entered the field against very large odds, much has been gained, and eminently large results have only been lost by small chances, such as the unexpected deaths of the late Earls of Carlisle and Shaftesbury removing the two most powerful allies from the House of Commons. In other respects the cause which deserved to be fortunate has been unfortunate. There has been, in some instances foul dealing against it, to an extent which has been unexampled which no more required to be calculated upon than the revival of the practices of dark ages such as poisoning and assassination. In some respects, I have felt that our measures are in advance of the time; the science of prevention is a new one: vast sums are spent in the charity of alleviation: the sanitary association can with difficulty obtain subscriptions of a few hundreds. I have a firm reliance that much that I have done, and hope to have strength, and to be left in peace to lay out, will be found available and profitable in other times, and in the hands of other men.

Some ground has been lost for the want of sufficient exposition; but for that I could get no time. The works you will receive from me, on the drainage of towns, and the application of the refuse of towns, have all had to be worked out by myself including the elementary principles of engineering applicable; and the consultations which from courtesy have been very extensive have been one source of obstruction. The least pleasant part of my retrospect up to this point has been the general failure of acts of generosity, or of confidence. If I were to go over the ground again, I would exact more: insist more on the exclusive direction of my own measures, have made entire clearances of staffs habituated to measures which require change, have pressed my claims for results obtained immediately

on the ministers or one the public for recognition and have had shorter accounts, have overlooked less frequently opportunities of personal vindication"(1)

1853 brought with it no lessening of the gloom. Its opening weeks were clouded by the unfortunate Croydon inquiry. Hawkesley and his friends grew increasingly clamorous.⁽²⁾ Before a Lords' Committee Toulmin Smith, acting on behalf of the slum landlords of Hertford, the Marquis of Salisbury and Baron Dimsdale, routed one of the Board's Inspectors.⁽³⁾ Above all, hostile elements in the localities were enormously encouraged and strengthened by the course of events in London, where Chadwick's schemes collapsed in the final disaster of an open quarrel between the Board of Health and the Metropolitan Commission of Sewers.

When the first Metropolitan Commission of Sewers succumbed to its internal disorders in September 1849, it had been succeeded by a smaller body of thirteen members, selected mainly for their scientific and technical knowledge, and including Sir John Burgoyne from the Board of Ordnance, prominent railway engineers such as Robert Stephenson and J.M. Rendel, and a number of officers from the Royal Engineers. Alarming stories presently came to Chadwick's ears. The great Mr. Rendel had been heard to use such expressions as "Sanitary Humbug", and had scoffed at the whole subject of sanitary improvement; he had contended that it was quite sufficient for the Commission to carry sewers down the centre of the streets, leaving the owners to drain into them or not, as they thought

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1. E.C. - Andrew Boardman, n.d.
2. In April Hawkesley published a pamphlet: "Letter to the most Honourable the Marquis of Chandos, M.P., in relation to the exercise of some of the extraordinary powers assumed by the General Board of Health, and the Superintending Inspectors".
3. "Minutes of Evidence taken before the Select Committee of House of Lords on General Board of Health (no.3) Bill", P.P. 1852 - 53, xxxi, p. 231 (Lords).

fit.⁽¹⁾ Chadwick's trial works were brought to an abrupt halt. The eminent engineers attended only intermittently to their unpaid public duties, and the business of the Commission was frequently held up for lack of a quorum.⁽²⁾ Their one considerable achievement was the notorious Victoria-street sewer, on which, after estimating that it would cost £13,854, they spent £33,000; then part of it fell into ruins almost immediately, necessitating an additional large outlay for repairs.⁽³⁾ As Londoners watched their rates mounting, while their streets and houses remained as foul as ever, the "Times" and Sir Benjamin Hall were presently as loud in complaint of the new Commission as they had been of the old.⁽⁴⁾ By pressure on its more amenable members and by representations to the Government, Chadwick endeavoured to maintain his control over the course of affairs at Greek Street. His anxiety increased as they drew further and further away from his influence. On the theory of town drainage in general, and of the drainage of London in particular, the views of Chadwick and his Inspectors clashed with those of Bazalgette, the Superintending Engineer of the Commission of Sewers, and Cubitt and Stephenson, their

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1. E.C. - Carlisle, 1 November 1849.

"Sir John Burgoyne talked I am informed of an application of Parliament to be relieved from the trouble of improvement rates.

I called today upon him to remonstrate.

He said he did not believe that they could get on at all if they were to be troubled about the drainage of every nasty dirty court or place in the Metropolis!

What has all the sanitary movement been about, if it were not for the drainage of the places which he pleases so to designate and which make up the bulk of the residences of the labouring classes

I could not sleep last night for the trouble and annoyance that this state of things must bring upon us, for all the officers are in a state of excitement upon the subject and there is I fear no means of concealing the shame" (Ibid.)

2. E.C. - Col. Phipps, 28 July 1851.

3. "Reports and Communications by Board of Health to Home Secretary on the Drainage of the Metropolis", P.P. 1854, lxi, pp. 3 - 4.

4. e.g. Hall's attack, Hansard, vol. 116, pp. 1063 - 71, 16 May 1851.

Consulting Engineers. "As to pipes he would not touch one", Stephenson had once declared. "He hated the very name of them, and felt inclined never to mention the word again".⁽¹⁾ In November 1852 the stoneware pipes, which had been laid down three years before in Church-lane and Carrier-street, St. Giles, by the first Metropolitan Commission of Sewers, were pulled up and replaced by brick drains, Bazalgette giving as his reasons the number of stoppages, the cost of removing obstructions, and the risk attendant on opening the ground for examination under old and badly built houses.⁽²⁾ This report had a marked effect on those who did not know that the failure had occurred in a group of 43 houses, mostly common lodging-houses occupied by the lowest type of Irish labourers, and with a most defective water supply; and that these houses represented a very small fraction of the 27,000 in London which by now were being drained by 346 miles of pipes.⁽³⁾ Another damaging document put out from Greek Street was a report on "Past Failures and Present Condition of Pipe Sewers", in which Bazalgette, after examining 122 pipe-sewers, found that some were completely choked, 23 were cracked or broken, and 113 contained deposit, in 66 ranging from 2½ to 7 inches in depth.⁽⁴⁾ It was thus not long before the officers of the Sewers Commission were being invoked as authorities by those who wished, from whatever motives, to resist or discredit the General Board of Health.

By August 1855 Chadwick could contain himself no longer, and Southwood Smith joined him in a letter to Lord Palmerston protesting against the wastefulness and erroneous principles of the works which the Sewers Commission was planning to execute. Bazalgette proposed to spend two million pounds on laying down another thousand miles of brick sewers, an "expenditure in worse

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1. "Communications from General Board of Health, and reports of Superintending Inspectors in respect to operation of Pipe Sewers", P.P. 1854 - 55, xlv, p. 49.
2. "Pipe and Tunnel Sewers, Reports of Mr. Bazalgette relating to", P.P. 1852 - 53, xcvi, pp. 9 - 11.
3. P.P. 1854 - 55, xlv, p. 5.
4. P.P. 1852 - 53, xcvi, p. 13 12.

than waste", and the main lines of intercepting sewer which he contemplated would cost a further three millions. For one-third of this amount, self-cleansing pipes could be installed. Furthermore, by adopting Austin's methods for the drainage of the metropolis, not only would the pollution of the Thames be avoided, as Bazalgette intended, but at the same time another great object would be secured which he had sacrificed --- the sewage would be saved for disposal as manure.⁽¹⁾

The letter did not stop Bazalgette's preparations, but in the debate which followed Palmerston showed himself a good friend to the General Board. In November 1853 he pointedly sent the Sewers Commission copies of reports he had received from a number of the Local Boards, "to show the cheapness and efficiency of the tubular system".⁽²⁾ Bazalgette took up the challenge, and made a personal inspection of the places in question. He satisfied himself that the cost of pipe drains was considerably greater than the General Board had stated, that in four out of the five towns he had visited there had been notable failures, and that none of them had as yet possessed pipes long enough to give them a fair trial.⁽³⁾ In reply the General Board submitted reports from the engineers responsible for the works under judgment.⁽⁴⁾ These censured Bazalgette for conducting so hasty and superficial an examination, and showed that at Rugby pipes had worked satisfactorily for a period of two years and at St. Thomas's, Exeter, for two and a half; that at Barnard Castle only one defect had been found in three miles of pipes; and that at Tottenham Bazalgette, in order to give a "general idea" of the charges resulting from the new system had quoted one bill for £40, --- neglecting to point out that this was incurred by the owner of one of the largest houses in the

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1. "Reports and Communications by Board of Health to Home Secretary on the Drainage of the Metropolis", P.P. 1854, lxi, pp. 5 - 6.
2. *ibid.*, p. 139.
3. *ibid.*, pp. 184 - 204: "Report upon the Drainage and Water Supply of Rugby, Sandgate, Tottenham, St. Thomas's, Exeter, and Barnard Castle", 13 February 1854.
4. Minutes, 26 May 1854.

town, who had put in eight cocks, ^{four} ~~2~~ water-closets, 212 feet of private drains, and apparatus for watering his carriage and flower garden. (1)

There we must leave the controversy, which poured its subsidiary stream of hate into the flood which overwhelmed Chadwick in July 1854. In the localities Bazalgette's reports were gratuitously circulated by the enemies of the Board to inoculate local opinion against the persuasive arguments of the Inspectors. At a public meeting at Weymouth, for example, an opponent rose to ask Austin, "What guarantee can the General Board offer us at Weymouth against such fatal consequences as these", (flourishing the diagrams of stopped pipes published by the Metropolitan Commission of Sewers), "if we adopt pipe drainage; and what course would they advise?" (2) Members of Parliament read Bazalgette's report on the pipe sewers of the metropolis, and looked at the eleven pages of diagrams which supported them, showing alarming cross-sections of pipes choked black with sediment, and the impression spread that the majority of pipe drains beneath London were cracked and oozing filth or were blocked by the retained ordure. It had a powerful effect when Chadwick's fate was in the balance in the vital debates of 1854. As F.O. Ward told him: "I referred to Bazalgette's lithographs as having mainly contributed to the strong impression in the House of Commons which led to your retirement: --- and Sir John Shelley confirmed that statement, referring to one particular lithograph (of a pipe from Mr. Rich's premises) shown as quite blocked up in Bazalgette's report, and which he particularly remembered as the subject of jokes about the rich state of the pipe: whereas, on turning to Grant's report, this very pipe proves among the poorest --- being in fact completely clear". (3)

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1. "Communication from General Board of Health, and reports of Superintending Inspectors in respect to operation of Pipe Sewers", P.P. 1854 - 55, xlv, pp. 58, 79, 88, 99.
2. *ibid.*, p. 15.
3. F.O. Ward - E.C., 25 April 1855.

CHAPTER 17.ACHIEVEMENTS, 1848 - 1854.

As the Board entered upon the last twelve months permitted to them by the Public Health Act, they began to weigh anxiously the chances that their mandate would be renewed by Parliament. A despondent letter from Shaftesbury, taking the cure at Ems in the summer recess of 1853, showed that he faced the coming session with gloomy foreboding. He had been cut to the quick when Palmerston withdrew support for his Mendicancy Bill, and he saw in its rejection a sign of his waning influence.

"The House, it is said, refused to listen; this, if it be so, is a sad omen for any future exertions; I have not time before me, as I had twenty years ago when I moved the factory bill; nor have I the same struggle and fire to endure disappointments. Punch and the Times have done their best for me; but my friends, it seems are weaker, and my enemies stronger, than either or both together!

I am sadly dispirited; and I shall have no heart left either to attempt, or imagine, anything more. And, at last, when our rulers give the coup de grace to the Board of Health, I shall feel, like Othello, that my occupation is gone".⁽¹⁾

They must make a defensive statement, he wrote later the same month, "but it will be to no purpose as an effort to ward off a capital sentence. That our dissolution is resolved on, I cannot doubt; the very fact of the combination against us of the Metropolitan members and the Subordinates of the Treasury would make our position very difficult to a bold and just Ministry; it will render our overthrow and oppression too certain and almost agreeable to a Government that is neither

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1. Shaftesbury - E.C., 3 August 1853.

one nor the other".

"Why should the Subalterns at the Treasury be jealous of me and my Lodging House Act?", he went on. "I am no Candidate for place, or pension, or political favour. God knows I have had trouble enough for nothing; abundance of 'monkey's allowance, more kicks than half-pence". Is it Mr. Wilson? but what is the use of asking who? the name of our enemies is 'Legion'".⁽¹⁾

With this feeling that they were ringed round by a multitude of open foes, and that an even more numerous host worked secretly for their destruction, the Board drew up at the end of 1853 the apologia for their five years of activity --- "The Report of the General Board of Health on the administration of the Public Health Act, and the Nuisances Removal and Diseases Prevention Acts, from 1848 to 1854".⁽²⁾ It was a more modest and inoffensive document than Chadwick had intended it to be, but its only concession to the opposition was to omit some of his more truculent passages.⁽³⁾ Chadwick was less resigned to defeat than was Shaftesbury, and less convinced that defeat was inevitable. Once when he had mentioned to Lord John Russell some encouraging facts about their progress, the Prime Minister had asked why the Board "did not ding them into people's ears: they needed to be saturated with them".⁽⁴⁾ There, thought Chadwick, was the fundamental reason for the general distrust with which the Board were now regarded: the ignorance of their achievements which permitted the misrepresentations of their enemies to pass current unchallenged. He hoped to enlist sympathy by a plain factual account of what the Board had done, and a reasoned explanation of the position they had taken up on certain controversial questions.

First, then, there were the figures which summarised the

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1. Shaftesbury - E.C., 28 August 1853.
2. P.P. 1854, xxxv, p. 1.
3. e.g. in reply to Lord Seymour's charges.
4. E.C. - Lord John Russell, n.d. (1851).

Board's work in executing the Public Health Act

By the end of 1853 284 towns had applied for the Board's intervention. The Inspectors had examined and reported on 243 of them; and 182, with a total population of 2,100,000, had been brought under the Act.⁽¹⁾ In 126 of these towns surveys had been completed, or were then in progress.

For 70 places plans of public works, founded on the surveys, had been prepared. In 31 towns, including Gloucester, Salisbury, Ely, Dover, Preston, Lancaster, Penzance, Wigan, and Chelmsford, plans for an entirely new set of combined works had been approved by the Board, and mortgages to the amount of £467,000 sanctioned for their execution. In the other 39 partial plans, providing for new sewers to combine with existing water works, or for an extension of the water supply, or for other improvements contemplated by the Act, had been examined and approved, and a further £589,000 in mortgages had been sanctioned for these purposes.

In 13 towns, including Rugby, Tottenham, Alnwick, Morpeth, Hitchin, Ormskirk, Barnard Castle, Ottery St. Mary, Ashby-de-la-Zouche, Launceston, Croydon, and St. Thomas's, Exeter, the public works for drainage and water supply were finished and in operation; and in all except Croydon they were reported to be working satisfactorily. In the coming year the Board expected similar works to be completed in another 35 towns. The Report did not mention that this list was shorter than they had hoped to present, and that one main reason why it was not longer was the shortcomings of the Board of Ordnance,

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1. According to Appendix 12, p. 103, the Act had been applied by Provisional Order to 86 towns and by Order in Council to 88. The Report does not give a list of the towns in question. Their names, the date of the application of the Act, and the method of its introduction may be derived from; (1) "Return as to constitution and powers of Local Boards acting under the Act of 1848", P.P. 1857 (Sess. 2), xli, p. 3; (2) "Returns of Districts where the Public Health Act, 1848, or the Local Government Act, 1858, or both of them, are in force", 1867, lix, p. 141. Both these returns are defective, however.

who had greatly exceeded in time and cost their original estimates for surveying the towns brought under the Act.⁽¹⁾ Even so, considering the means at the Board's command and the burden of their other commitments, they had done well. They had been engaged at the same time in their ill-fated metropolitan ventures, none the less laborious and protracted because they were ill-fated; half-a-dozen Superintending Inspectors were all the staff they had been able to employ on the local inquiries; and they had spent less than £64,000 (more than a third of which was repayable by the Local Boards) in the their five years of service, a figure well within their Parliamentary vote.⁽²⁾

So much for the extent of their operations. But had the Public Health Act brought benefit to the towns where it had been introduced? On this point the Board could admit no doubt.

By the Act a place could, for little more than a hundred pounds,

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1. On 26 March 1851 the Board recorded in their Minutes that, despite the promises of Colonel Hall, no finished plan of the districts under the Public Health Act had yet been received. The survey for Rugby had been in hand eight months and was still unfinished; Coventry had been waiting eight months, Ware seven, Barnard Castle six, and other places from five to six months. Moreover (Minutes, 10 June 1853), the cost was proving to be from four to six times the amount originally estimated by the Ordnance; at Newcastle it was £563 not £200, at Chelmsford £1,025 not £300, at Torquay £730 not £350. "These delays", Chadwick told Burgoyne (20 June 1853), "have occurred in a number of the best disposed towns which were inclined to have carried out complete works. In several Towns, I believe, they have occasioned reactions against the Promoters of sanitary measures. They have occasioned the loss of much of the opinion in favour of new works which the cholera created. It is owing mainly to this delay, and the example of the delay upon other Towns than those under Survey, that, at the time when the Public Health Act must be brought under consideration for renewal, we have so few towns to shew with complete works in justification of the measure"
2. In reply to those critics who accused them of extravagant expenditure, the Board pointed out that they had been voted £65,563, of which they had spent £63,969/4/6. Of this £23,500 was to be repaid by the Local Boards. (Report, pp. 46 - 47).

arm itself with powers which, if sought by Local Bills, might cost several thousands. It could, consulting the expert counsel of the Board's Inspectors, equip itself with a system of public works which were novel in design, cheap to construct, and efficient in operation, bringing the means of health and cleanliness down to a weekly charge of a few pence. But greater than the economy of money which resulted was the economy of life. In selected groups of the working class, placed under favourable sanitary conditions, the annual death rate had declined from 30 to 13 per thousand. If the death rate throughout the kingdom were at the same level, 25,000 lives would be saved annually in London, and 170,000 in England and Wales; and the average age at death, which now stood at 29, would be raised above 48.⁽¹⁾ In these practical exercises in social arithmetic the Board set a plain target before administrators: to close the gap between an actual mortality of 30 per thousand and a "natural" or "inevitable" mortality of 13 per thousand or less.

These were the benefits which sanitary reform held out for the future. But they could be obtained only if certain administrative principles were recognised and acted upon. In the first place, it must be acknowledged that defence against zymotic disease was not a matter which could safely be left to the resources of the individual; the chief preventive measures were large-scale works for municipal and domestic drainage and water supply, which could be generally and systematically introduced only by a public board. Secondly, even a local public board could not carry out unaided works of so special a nature. To overcome the inertia of local opinion and to supply the deficiencies of local knowledge, there must be a central department with wide initiatory and supervisory powers. The flag of centralisation was thus nailed firmly to the mast. And by its side the Board ran up another, no less detested:

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1. *ibid.*, p. 30.

that of municipal enterprise. Recanting earlier statements, based upon the Health of Towns report, which asserted the superiority of trading water companies in efficiency and economy, they commended for imitation the examples of public management by town councils and Local Boards which in recent years had come under their notice.⁽¹⁾ The reformers of Gwydyr House thus identified themselves with two unpopular propositions: that local representative bodies were not competent to administer without central aid or supervision all matters which affected their districts; and that profit-making bodies were not invariably the best instruments for rendering service to society. Against these doctrines would certainly be ranged the advocates of local self-government, who were many, and of private enterprise, who were even more numerous.

From the localities, where in nearly 250 towns the sanitary condition had been laid bare by the Inspectors and in half of them the first steps at least had been taken towards improvement, the general picture was one of steady and accelerating progress. Against this advance the Board had to set the total failure of their efforts in the metropolis. Regretfully they glanced once more at the Water Supply and Interment schemes, denying that it was any intrinsic weakness in their conception which had brought them to nothing, and re-asserting that faith in the principles of planned service and public ownership which formed their essence. Enough has been said already about these measures. There was much else touched upon in the Report --- all the multifarious activities of a brisk and capable department, continually looking for fresh opportunities to exercise its powers and for fresh pretexts to widen them. They had advised Sir Charles Wood to abolish the Window Duties⁽²⁾, supplied Lord Palmerston with ammunition for his campaign against the smoke nuisance,⁽³⁾ considered what

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1. See above, pp. 537-8.
2. E.C. - Sir Charles Wood, 1 April 1851.
3. "Letter from General Board of Health to Home Secretary on Smoke Consumption", P.P. 1854, lxi, p. 533.

regulations might prevent the sale of unwholesome or adulterated articles of food.⁽¹⁾ Instructional letters by the thousand had taught local authorities how to fight the cholera with the powers of the Nuisances Removal and Diseases Prevention Acts.

Of these minor occupations of the Board three call for more than the incidental notice they have so far been given in this study --- their attempt to encourage the erection of improved working class houses by local authorities and progressive landlords; their Act for the regulation of common lodging-houses; and their two reports on Quarantine.

A mass of memoranda remain to show that in the last months of the Board's existence Chadwick was busy on the clauses of a General Building Bill, which would have been the first attempt to extend to the whole country the norms of sanitary construction.⁽²⁾ It was not, however, the first attempt of the Board to "christianise", as Shaftesbury phrased it, the domestic condition of the working classes.⁽³⁾ What might be done in this direction had been demonstrated in practice by the Metropolitan Society for Improving the Dwellings of the

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1. Minutes, 27 November 1849, 12 May and 21 June 1853.
2. *Ibid.*, 17 February and 18 May 1854.

Legislation hitherto had been concerned mainly to prevent fire and to prohibit projections which impeded straight lines of communication. In future, according to Chadwick's Bill, no house was to be occupied until an authorising certificate had been issued by the Officer of Health and the Surveyor of the Local Board of Health. "At present there is no infamous site which for the greed of an immediate supposed profit will not be used for habitation. The certificate should be the warrant of occupation for building purposes". It should declare that the site was free from water, and at an adequate distance from marsh land; that the water supply was suitable for drinking and sufficient in quantity; that in construction the house was water-tight and properly drained, with gutters and shoots, and with water-closets and house drains cleansed by the ordinary flow of household waste water. It should specify, moreover, the maximum number of occupants permitted to live in the house. ("Memoranda on the principles of a building Act", MS, n.d.)

3. Hansard, vol. 115, p. 1263, 8 April 1851.

Industrious Classes, who had built two blocks of model lodging-houses in the Old Pancras Road and Mile End New Town, in which the mortality rate had dropped to 13.6 per thousand.⁽¹⁾ To encourage the establishment of similar lodging-houses Ashley introduced a Bill into the Commons in April 1851.⁽²⁾ It was a permissive measure, on the lines of the earlier Baths and Washhouses Act, making available to boroughs and parishes with a population over ten thousand powers to erect lodging-houses, the cost being borne upon the rates.⁽³⁾ The Act was still-born; no local authority took advantage of its provisions; and it is chiefly interesting as an example of the General Board's policy of encouraging the enterprise of public bodies.

The main reason for its failure, we may judge, lay in the inhibitions of the ratepayer, who was not prepared to risk a loss on a municipal building programme, and whose fears were reflected in the caution and lack of initiative of the local authorities. Model houses were all very well, but could they produce a reasonable return of profit? The same doubt restrained the improving landlord. "No doubt nothing can be more desirable than to provide good houses for the Poor, but I do not see my way in it", Lord Ellenborough once told Chadwick. "..... No Agricultural Labourer can afford to pay in rent more than one shilling a week, and I cannot build a really good Cottage for less than £80 or even £90. In the last two years I have expended from £1,000 to £1,200 on cottages and I am sure I do not get more than 2 per cent. In Towns no Speculator will build without getting at least 6 per cent., and he ought to have that".⁽⁴⁾ This, in Chadwick's view, was the crux of the housing problem. It was necessary to show that sound and sanitary building need not involve a lowered profit, that the

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1. "Results of Sanitary Improvement, illustrated by the operations of the Metropolitan Society for Improving the Dwellings of the Industrious Classes"; pamphlet by Dr. Southwood Smith; Charles Knight, London, 1854.
2. Hansard, vol. 115, pp. 1253 - 76, 8 April 1851.
3. 14 & 15 Vic. cap. 34.
4. Lord Ellenborough - E.C.; 11 August 1848.

motive for erecting model cottages might be as much good business as high principles. "The desideratum for the working classes is to bring science and capital to bear on the construction of their houses: the only way to improve them and at the same time to make them cheaper is to make them a manufacture".⁽¹⁾ This meant, in the first place, experiment with new materials and methods of construction, with fire brick grates, tubular chimneys, tile roofs, and hollow brick walls and floors.⁽²⁾ It meant, secondly, the enlistment of large capital, to make possible the economies of mass production. Chadwick's eye was thus always on the watch for the progressive landlord who might be talked into trying out his ideas. He was delighted, for example, when Colonel Phipps, the Prince Consort's secretary, informed him in December 1848 that Albert was considering how to improve the labourers' houses on his property,⁽³⁾ and within a fortnight he submitted a lengthy paper on materials and building methods.⁽⁴⁾ The model cottages erected under the patronage of the Prince for the Exhibition of 1851 owed much to Chadwick's advice; and he was convinced that by large-scale operations similar or better cottages might be built at half or two-thirds the cost, and still give a return of 7 per cent.⁽⁵⁾

A second Bill was introduced by Ashley (now Shaftesbury) in the 1851 session, aimed, not at the dwellings of the

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1. E.C. - T. Bamfield, 6 January 1845.
2. The hollow brick, in particular, was Chadwick's favourite device of construction. "I find that hollow bricks, made with an Agricultural tile machine, burn harder, and are less absorbent than the ordinary solid brick by two thirds, and are cheaper" (E.C. - Russell, 5 December 1843).
3. Col. Phipps - E.C., 8 December 1848.
4. E.C. - Col. Phipps, 23 December 1848.
5. E.C. - Col. Phipps, 14 May 1851.

"I believe we shall be able to show that a very good warm weather tight cottage, containing one living room, three sleeping rooms, a scullery and a water-closet, may be constructed for about £50: or one half the expense incurred for Prince Albert's cottages; that is, if they are constructed in numbers" (E.C. - ? Phipps, 3 November 1851).

stationary population, but at the doss-houses which put up from night to night the shifting thousands of homeless vagrants.⁽¹⁾ The common lodging-houses, maintained, as Dr. Ferriar had said, by the "keepers of fever beds", were the foci of contagious disease in the district. Here for twopence or threepence a night bed and board were found for the thieves and prostitutes of the neighbourhood, and for the various classes of the tramping fraternity, hawkers of matches and laces, travelling tinkers and umbrella repairers, ballad singers and beggars "on the downright". Mingling with these colourful but disreputable characters were the migrant labourers, seeking work, and driven into this company for want of suitable shelter elsewhere.

"Last night I spent entirely in going through all the lodging-houses and brothels in the town", Lyon Playfair once wrote to Chadwick. "I began at twelve and finished at half past four, so I saw a prodigious quantity. Such sights! frequently fourteen in a room, women and men lying stark naked together!"⁽²⁾

The remedy, Chadwick had urged in the "Sanitary Report", was to oblige all lodging-house keepers to take out a licence, and to subject their establishments to inspection by the medical officer of the Poor Law Union.⁽³⁾ The demand for public control was taken up by the Inspectors in their local Reports. Carlisle, observed Robert Rawlinson, had 72 lodging-houses, one huge forcing-bed for the generation of vice in all its forms. It was in vain, he declared, to erect workhouses, gaols, and hospitals, or to establish penal colonies for the punishment, reformation, or suppression of vice, if these places, the fountain-head of all that was depraved, were left unregulated. "The poor cannot here help themselves".⁽⁴⁾

Hence in 1851 a Bill "was made up for Lord Shaftesbury who got it passed, and whose name it bears".⁽⁵⁾ It was an

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1. Hansard, vol. 117, p. 1123, 24 June 1851; vol. 118, pp. 325 - 37, 8 July 1851. 14 & 15 Vic. cap. 28.
2. L. Playfair - E.C., n.d., c. 1843 - 44; probably referring
3. "Sanitary Report", 1842, p. 365. to Sheffield.
4. Report on Carlisle, p. 50, 56.
5. E.C. - M. Verge, n.d. (1890):

undeniable success. By the middle of 1854 Chadwick could point to a remarkable diminution in the number of fever cases reported from the lodging-houses of London. Out of a population of 30,000 in the 1,400 or 1,500 houses under inspection, there had been only ten cases of fever, whereas it had formerly been common to have as many as twenty cases in one quarter from a single lodging-house. "This with former fever nests, is demonstrative of administrative power, and confirmatory of the reduction of deaths in the model dwellings to less than half the usual average".⁽¹⁾

Of all the Board's work none has been so completely forgotten as their reports on Quarantine⁽²⁾; yet Chadwick maintained that if the Board had rendered no other service than the publication of those reports, they would have fully justified their appointment.⁽³⁾ There is something to be said for this view. Based though they were on a false epidemiology, the reports issued in practical recommendations of the greatest value to the health and well-being of the seafaring population.

The evidence the Board had collected, Chadwick believed, proved without doubt that the plague was no more than an intense typhus, and comprehended it, with cholera and yellow fever, in the category of diseases which were bred amidst filth and overcrowding, and which might therefore be prevented in the proportion that these localising conditions were removed. He passed on to the conclusion that the contagionist theory was utterly discredited, and with it the quarantine system which had been erected upon it. The cholera panic of 1831 - 32 had aroused governments all over Europe to unparalleled exertions,

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1. E.C. - ? , 5 June 1854. "Reports made to Home Secretary by Assistant Commissioner of Police, upon operation of Common Lodging-houses Act", P.P. 1852 - 53, lxxviii, p. 525; 1854, xxxv, p. 115. "Papers received by Board of Health, exhibiting operation of Act", 1852 - 53, lxxviii, p. 553.
2. "Report of the General Board of Health on Quarantine", P.P. 1849 (1070), xxiv, p. 137. "Second Report on Quarantine; Yellow Fever", 1852 (1473), xx, p. 117.
3. E.C. - T. Thornely, 17 July 1854.

and the old-style quarantine, directed merely at shunning contact with the unclean, had been given a thorough test. Police cordons, stiffened with troops, had been thrown round infected areas; the sick and their attendants had been isolated, old clothes had been burned, the dead had been buried in special places; in Spain infractions of the regulations had been punished with death. Despite all this, in 1832 cholera had leaped from London to Paris, and had attacked 35 out of the 48 quarters in five days, killing 16,000 in the month of April alone.⁽¹⁾ As well then raise a barrier against the wind, it seemed to the Board, as expect to keep out the epidemic atmosphere which brought the cholera by lines of soldiers at the frontier and warships at the approaches to the seaport towns. The true safeguards were not quarantine regulations but sanitary measures. A glance into the forecastles of most merchant ships would reveal at once why the outbreak of pestilence was so often associated with the landing of the mariner. The seamen of the world's greatest maritime power lived in floating cellar-dwellings, darker, fouler, and with less ventilation than any in a Liverpool back street. Scanty as the statistics were, they indicated without question the steady operation of local causes of preventible disease which made the working life of the sailor shorter by far than that of any other class of labourers.

(2) The neglect of "this important and comparatively defenceless class of the community" was shown by the fact that of late years scurvy had reappeared amongst them with alarming force; yet, commented the Board, the special cause of this disease had been long determined, and an infallible remedy for

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1. C. Creighton, "History of Epidemics in Britain", vol. 2, p. 830.
2. "Report on Quarantine", P.P. 1849 (1070), xxiv, pp. 39 - 91. According to the Marine Register, deaths from zymotic diseases among sailors in the years 1838 - 48 formed 55.9 per cent. of the total; the comparable proportion for artisans of all ages was 21.5 per cent., and for the upper classes 12 per cent.

its prevention was a matter of familiar knowledge.⁽¹⁾

The Board therefore proposed the dissolution of the existing quarantine establishments, and their replacement by sanitary regulations. A ship at anchor, and in communication with the shore, should be regarded as coming within the scope of the Nuisances Removal and Diseases Prevention Act, and dealt with on the same principles as a dwelling on shore. In case of sickness the captain should be ordered to bring a medical officer aboard, who would take charge, and order the cleansing and purification of the ship, the diminution of overcrowding, and the removal of the sick. During the epidemic of 1848 - 49 the Board issued instructions to this effect⁽²⁾, in the face of sturdy protests from Sir William Pym, the Director General of Quarantine at the Privy Council Office.

If the quarantine regulations were useless to protect the population from disease, then, the Board suggested, the fiscal inconveniences of the system might properly be considered. Frequently the expense of twenty or thirty days' detention of a cargo was equivalent to the cost of the whole voyage home; perishables such as fruit rotted in the holds; the prices of cotton goods were raised 15 per cent. This was a train of argument that Manchester could follow; and when the British Government decided it was time steps were taken to liberalise the quarantine system, it was probably due less to the Board of Health than to the Manchester Chamber of Commerce, convinced, as Dr. Sutherland put it, that "Sanitary reform and free commerce are synonymous terms, and that filth and restrictions will in future go together".⁽³⁾

Spain, Portugal, and the Italian states still clung superstitiously to quarantine, but in the United States, France,

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1. *ibid.*, p. 96.
2. "Special Notification to Captains of Merchant Ships, Steamers and Colliers", "London Gazette", 1 December 1848, pp. 4386 - 89.
3. J. Sutherland - E.C., 31 December 1851.

and Austria, faith in its efficacy was waning, and there was strong support when the French Government summoned a Quarantine Conference to Paris in July 1851. The chief British representative was Dr. Sutherland, the Board's ablest and most persuasive medical officer. By the third week of the Conference Sutherland was reporting to Chadwick that he had won over the most influential contagionist in Italy, the representative of Naples, and the delegates were condemning lazarettos root and branch as doing more harm than good in their present state.⁽¹⁾ As they sat at the Affaires Etrangères, discussing Sutherland's proposals for hygienic reforms in the Turkish Empire, they heard the discharge of cannon and musketry as the people of Paris manned the barricades in defence of the Republic. A terrified official rushed in crying that all was lost, and the sentries at the outer doors disappeared ("always a sign of great danger", remarked Sutherland drily), but the delegates, declining the offer of a guard from the Cabinet, continued undaunted to discuss pratique and Bills of Health while a battle raged in the streets three or four hundred yards away.⁽²⁾ "The people never ceased to cry 'vive la république'"; reported Sutherland, who had just been to see the havoc caused by Louis Napoleon's cannon, and had had to run before a charge of lancers.⁽³⁾

The Conference resulted in a victory for Chadwick's hygienic principles, if not for his anti-contagionist views. Quarantine remained, but much of its ancient barbarity and unreason would in future be swept away. The Conference had accepted the recommendation that vessels should be subject to the examination and certification of a port medical officer, who would in effect be the equivalent of the urban Officer of Health. "Naval hygiene is declared to be obligatory on all the governments", reported Sutherland, "and the Conference has

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1. J. Sutherland - E.C. 23 October 1851.
2. J. Sutherland - E.C., 8 December 1851.
3. J. Sutherland - E.C., 3 December 1851.

unanimously adopted the principles of Sanitary reform, by sending my proposals to Turkey and Egypt, and by expressing a unanimous desire that all the governments should at once set about the sanitary improvement of sea ports and the places adjoining".⁽¹⁾ The die-hard Pym obstinately refused to accept the conclusions of the Conference, declaring that it was impossible to furnish every ship with a Bill of Health.

Absolute nonsense, cried Sutherland; "I wish we had one hour of Sir Robert Peel or Lord Palmerston to sweep the whole buzz of objections away".⁽²⁾ Half a century was to elapse before the quarantine system was finally settled on scientific principles, and the penal interdict of earlier times replaced by the modern procedure of notification and medical inspection, disinfection and inoculation. In the early stages of that development the Board's Reports had a considerable and beneficial influence. Translated into French and Italian, they circulated on the continent and in all the maritime towns of the Levant and of North and South America, directing the attention of governments to the floating slums of the forecastle, and teaching that clean ships and regular medical inspections were more proof against the spread of infection than naval squadrons or a cordon of military.

The Board's defence of their policy seems to have caused not the slightest ripple on the surface of opinion. Since Chadwick's "Sanitary Report" of 1842 the propagandist efforts

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1. J. Sutherland - E.C., 5 December 1851.
2. J. Sutherland - E.C., 4 August 1852.

The Minutes of the Conference were printed by the French Government, but were not made public. For an account of its proceedings, see "The International Quarantine Conference of Paris in 1851 - 52", by Gavin Milroy (one of the Board's Medical Inspectors), in "Transactions of the Society for the Promotion of Social Science", 1859, pp. 605 - 612.

of the reformers had shown steadily diminishing returns, as the public mind became saturated with horrors and hardened by reiteration. This latest production of his, flattest and most pedestrian of all sanitary manifestos, fell dead from the press.

Why should sincere and laborious effort for the good of one's fellow men receive such scant support? Why should he whose life was devoted to removing obstacles to social progress be so hated and so suspect? Conscious of his own integrity of purpose, Chadwick found the problem inexplicable. But there were other facets of his character of which he was less aware. He could not know of the irritation caused by the constant nagging of that voice, always making unpleasant truths unpleasantly obvious, and by that cocksure manner, impatient of all opposition, with which he sustained his arguments. In the process of editing and revising by his colleagues, Chadwick's reports were weeded of their querulous personalities and the cruder manifestations of his robust belief that his opponents must be either fools or rogues, but his manuscript drafts and private correspondence supply innumerable examples. McCulloch reprimanded the Board for the expense of their reports --- was it not because those reports had more than once overturned his opinions as a political economist?⁽¹⁾ William Napier's creditors closed in on him, and forced him to flee to Brussels --- and the shortness of credit allowed to the explorer of the Surrey sand springs caused "some strong suspicion, that a hard water interest has been foully exercised against him".⁽²⁾

Professor Leibig thought that in so wet a country as England liquid manure must be washed out of the soil and wasted; but then Leibig was the patentee of a solid manure. Professors Graham, Miller, and Hoffman presented a report to the Government against the soft Farnham water, and in favour of Clark's method of softening water by chemical means --- were they not

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1. E.C. - ? (Lord Brougham), 1 June 1849.

2. E.C. - F.O. Ward, 1 July 1851.

chemists?⁽¹⁾ There never was a man more suspicious of his antagonists' motives than Chadwick, more convinced that their objections sprang from materialist root, a trade percentage, a family link, or some snug little place. It gave a harsh temper to his mind which rendered nugatory such efforts as he made to conciliate opposition. Whenever he moved towards an accommodation, he never left any doubt that he felt he was striking a pact with evil things, with greed and ignorance and prejudice.

Seeking the reasons why the Board of Health fell in 1854, we note then Chadwick's inept handling of the diplomacy of Gwydyr House, the difficulty of stirring popular imagination with the tiresome minutiae of sanitary legislation, the combined strength of a score of threatened interests. A further reason was that its well-wishers were ill-led and weakly organised. There were a few names of national weight and influence, but the political leaders of the sanitary movement were mostly amiable nonentities. The sanitary movement suffered from its bores. The House rapidly emptied whenever R.A. Slaney introduced his favourite motion for a committee to report on practical plans for the improvement of the working classes; and his talk of sickness benefits, old age pensions, and savings banks was met by ministerial stonewalling or the retort of some private member that "he wished the people not to depend upon

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1. E.C. - F.O. Ward, n.d. (June 1851): "there is much evidence throughout the report, in omissions and in the shaping of the points, of the operation of a sinister influence in its propagation, which has yet to be disclosed". Ward rebuked him for the outburst: "I would not run down Clark's process which is a beautiful and quite successful one, nor would I impute a sinister interest to such men as Graham, Miller, and Hoffman. It is quite enough that they are mistaken --- and that we can prove them so, and it is quite enough that Clark's process is unnecessary" (26 June 1851).

On a later occasion Ward returned some memoranda on the Interments Act with the comment that, while he concurred with their argument, "I strongly advise such charges as those of "maliciousness" and the other personal aggressions to be eliminated", since such charges only excited distrust. (11 March 1852).

Government". (1) James Mackinnon lectured the House regularly and conscientiously on the evils of smoke and Smithfield market and intramural interment, but even his friends shook their heads over the results. "Mr. Mackinnon never succeeds. They say he has no tact", P.H. Holland remarked sadly to Chadwick. "He has a great knack at failing". (2) It was a restive team that Chadwick sought to harness to his plans. Shaftesbury and Ebrington and Southwood Smith moved under his control; but others did not respond so readily to his insistent rein. Carlisle was too pliable to be relied upon. Joseph Hume again, as the great advocate of retrenchment, co-operated willingly in urging model act procedure in place of costly Local Bills; but he looked with misgiving on Chadwick's ^{engineering} ~~sanitary~~ estimates and the proposed creation of a paid local bureaucracy throughout the country.

Chadwick himself frowned upon the organisation of a "sanitary party". Such talk would divert attention from measures to men, would show "how few they are and how young they are". (3) Had it not been a trick of Leslie and Byng at the Sewers Commission, when they could pick no holes in the measures themselves, to attempt to discredit them as the work of "Chadwick's party"? --- by which stratagem they detached those members who prided themselves on their independence of viewpoint and their freedom from party bonds, and, moreover, convinced Walter of the "Times" that the measures were the product of cliques and cabals. A sense of professional decorum also deterred Chadwick from becoming the centre of a body of political agitators. Thus he told Lord Ebrington "that for myself as a public officer I must belong to no party, that socially I may move amongst a party but not be of them. The Board of Health has quasi judicial duties to perform, and it may receive any support from any party, but it cannot itself be of

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1. Hansard, vol. 109, pp. 359-375, 5 March 1850.
 2. P.H. Holland - E.C., 22 March and 22 July 1846.
 3. E.C. - Lord ? (Ebrington), 6 August 1852.

a party. Of course no one expects, that privately or socially we may not advocate views, but not as an active member of a party, without laying oneself open to observations. I have kept our Inspectors when attacked and our clerks from meetings of the Sanitary Association; and have endeavoured to keep at a distance from them myself. I was somewhat reluctant to appear at the dinners, but was overruled by Lords Shaftesbury and Carlisle on the grounds of purism".⁽¹⁾

If anything could restore the Board's popularity, it was an epidemic. Fear was their most powerful and dependable ally; and, mingled with the anxiety with which they scanned the weekly mortality returns, there was perhaps a repressed hope that they would be called upon, as Shaftesbury put it, to "resume our old 'aggressions'".⁽²⁾ Twice already, in July 1850 and in September 1852, the Board had informed the Government that they believed the country was in imminent danger of a return of the cholera⁽³⁾; but neither the Whigs on the first occasion, nor the Tories on the second, could be persuaded that it was necessary to put the Diseases Prevention Act into operation, together with the additional powers which the Board were demanding on the strength of their experience in 1848 - 49. In September 1853, however, the cholera appeared unmistakeably in Hamburg; and in a day or so it broke out again in its old haunts in Newcastle and Gateshead. In the first fifteen days of the outbreak 214 deaths were reported from Newcastle, and 1,371 before September was out. The Board's "Choleraic heroes"⁽⁴⁾, John Sutherland, R.D. Grainger, and Hector Gavin, were promptly in the field. Fearing that their enemies would attempt to oust them from the administration of the Diseases Prevention Act, Shaftesbury wrote

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1. *ibid.*
2. Shaftesbury - E.C., 26 August 1852.
3. Minutes, 19 July 1850, 13 September 1852.
4. Shaftesbury - E.C., 22 September 1853.

privately to Palmerston.⁽¹⁾ At the same time he entreated Chadwick, "Be very respectful for be assured that the slightest expression will be magnified into a crime by men who are resolved to remove us from our places, and tarnish us in reputation".⁽²⁾ "Let me counsel you", he wrote again, "to take the most conciliatory tone with the Boards of Guardians, the Treasury, and all authorities; one ground of our unpopularity is, as I have been told, that we were too dictatorial. I know that it was necessary to be so to overcome resistance; but let us be as forbearing as possible".⁽³⁾

Chadwick found that he had not misplaced his trust in Palmerston, who held the soundest of views on the value of cleanliness and the supineness of local authorities. The Home Secretary advised the Treasury to let the Board have such additional medical assistants as they considered necessary, and he called for a list of nuisances in the metropolis to enable him to decide whether they might be made the subjects of indictment.⁽⁴⁾ Whether it was due to Palmerston's support, or to Chadwick's studied restraint, or simply to the chastening fear of a threat so speedily renewed, the atmosphere which surrounded the Board in this latest epidemic was better than in 1848 - 49. The Board's relations with the College of Physicians, the Scottish Law Officers, the Customs, the Board of Trade, the Poor Law Board, and the Metropolitan Commission of Sewers, were handled with the greatest caution; and Inspectors who went round to warn the Guardians of St. Olave's and Greenwich of the impending attack reported an anxious desire to co-operate and a readiness to admit "that in 1849 things were left too late, and that the pestilence was fairly down upon them, before they took proper measures".⁽⁵⁾ But the Board's

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1. *ibid.*
2. Shaftesbury - E.C., 28 August 1853.
3. Shaftesbury - E.C., 17 September 1853.
4. Minutes, 24 September and 10 October 1853.
5. *ibid.*, 30 September 1853.

powers remained what they had been three years before; the same ignorance and incompetence ruled in the localities; and the filth that had been cleared away during the earlier visitation had long since returned with all the inevitability of a natural process.

"We have had the scourge you predicted, and as you predicted", the Town Clerk of Gateshead told Rawlinson. "The cholera has been true to its character. The dispensary Surgeon told me that he could have stood on a gallery in Martin Dunn's premises in Hillgate, alluded to in the Gateshead Report, and have pitched four beans into four rooms, each containing a cholera corpse⁽¹⁾..... The plague spot is this --- when a sanitary improvement is proposed, it is discussed with reference, not to its necessity, but its expense: and if expensive, however necessary, it is shelved. This has been the case in Gateshead and what are the consequences? Our tradesmen, wholesale and retail, have lost thousands, their customers being afraid to enter the town --- even with supplies --- an enormous expense has been incurred in tending and feeding the sick and burying the dead --- a grievous permanent charge upon the rates for the support of the widows and orphans who have lost their breadwinners --- and the work is yet to do".

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1. From Scotland William Lee described another "Haunted Locality":

"Dr. Gavin and I have today inspected "Spring Burn", a large Village about three miles out of Glasgow, where Cholera was most malignant in 1831 or 1832. Again in 1849 (see Dr. Sutherland's Reports) and now again, in the very same rows, and in the very same houses and rooms, are the neglected miserable inmates being swept away.

In two adjoining single room tenements, almost new, built within a few years of rubble, with monster dungsteads within about 12 feet distance, five human beings have been destroyed of cholera within the last eight days, and one now lies ill ---..... I valued the property in which these five victims had died at £60 for the fee simple. How cheap is human life, when it is not worth the cost of a shelter in which it can continue to exist!" (William Lee - E.C., 11 February 1854).

"A movement is on foot for an inquiry", went on Rawlinson, "and I trust it will be granted, in order that the saddle may be placed on the right horse --- and the absolute necessity for granting larger powers to the General Board of Health may be made fully apparent. The powers of that Board are crippled from a miserable apprehension of interference with vested rights and local authorities, and the General Board is blamed for not exercising powers denied them".⁽¹⁾

So great was the indignation amongst the working classes of Newcastle, that there was some fear that they would rise and pull down the houses which were the seats of the pestilence.⁽²⁾ On 8 November the Board recorded in their Minutes their belief that the epidemic at Newcastle had been aggravated by causes which might have been prevented if the local authorities had exercised a proper regard for their Common Law obligations as well as their statutory duties with respect to the public health. "The Board believe that if a solemn and judicial inquiry into the truth of these allegations were made by the public examination of official, professional and other witnesses with the view to the redress as far as practicable of wrongs done and the provision of remedies for the future it would be productive of national advantage".

"It is stated", ran a minute of 7 December, "that at Newcastle the execution of complete works would probably have interfered with the interests of a Trading Water Company and that Shareholders of the Company got themselves elected upon the Town Council to oppose interference, and that they did obstruct the exercise of powers conferred under the Local Act for the public benefit".⁽³⁾

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1. R. Rawlinson - E.C., 22 October 1853.
 2. E.C. - ? , 28 September 1853. "One of the Board's Inspectors had to exert himself to allay the feelings of irritation amongst the labouring classes. Another writes privately that the whole of the houses occupied by them ought to be bombarded".
 3. The same minute alleged that at Gateshead a number of owners
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The unrest amongst the Newcastle population, the allegations of incompetence against the local authorities, and the rumours of negligence on the part of the water company, could not be ignored in the dangerously inflammable atmosphere of an impending epidemic, and the Government therefore appointed a Commission of Inquiry, which included John Simon, Joseph Hume, and J.F. Bateman. The Commissioners demonstrated, with nearly six hundred pages of evidence, that Newcastle presented the worst features of the old walled towns, together with added evils of comparatively modern origin. They described the cellar-dwellings, the back-to-back cottages, the increased overcrowding which had resulted when the York and Berwick Railway had been driven through the town; and stated that five-sixths of its houses lacked water-closets or any other form of faecal house-drainage, and two-fifths were entirely without drains of any kind, even for carrying off the rain.⁽¹⁾ They revealed that the Town Council had neglected to put into force its powers under the recent Local Act till the day after the outbreak reached its climax, and had acted then only upon the instigation of the Inspector of the General Board.⁽²⁾ They gave it as their opinion that in view of the "great sanitary capabilities of Newcastle", its death rate, which had averaged 28.6 per thousand over the previous fifteen years, was nearly double the natural or necessary mortality, and that a thousand

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(Continued from previous page) of small tenements had been elected for the purpose of obstructing the Public Health Act; and at Luton the proprietor of some houses in which fifteen deaths had occurred was a member of the Local Board.

1. "Report of Commissioners on Causes of Outbreak of Cholera in Towns of Newcastle-upon-Tyne, Gateshead, and Tynemouth", p. xvi; P.P. 1854, xxxv, 131.
2. *ibid.*, p. xiii. Cf. E.C. - R.D. Grainger, 14 September 1853: "One line of opposition now being taken is that the powers vested in the General Board by the Public Health Act should be exercised exclusively by the local authorities. The reply is see how the exclusive powers possessed by such Boards as the Newcastle Town Council are exercised, how the powers in respect to cellar dwellings are exercised at Manchester, where the owners of such dwellings, members of town council refused to put the act in force unless they had compensation".

or twelve hundred lives were unnecessarily sacrificed there every year.⁽¹⁾ But the Commissioners could not prove that the town was much worse in 1853 than in 1849, when it had escaped very lightly; nor that its administration was more neglectful than that of a dozen other industrial towns where cholera had not appeared at all. In 1853 - 54 as in 1848 - 49 the real cause of cholera remained a mystery⁽²⁾; and the medical profession was no more agreed upon its treatment, the suggestions published in the press including the use of ice, castor-oil, laughing-gas, charcoal, and mustard poultices and hot mint tea.⁽³⁾

By November 1853 the outbreak on the Tyne had burned itself out. A few months later the disease appeared in the capital. But before the epidemic reached its height, Chadwick and his colleagues had fallen from power. Not even the fear of cholera could drive out the hatred which by now surrounded the General Board of Health.

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1. *ibid.*, p. iv.
2. The Commissioners agreed with the Board's medical Inspector, R.D. Grainger, that the cause was a "general malaria" arising from the neglected and miserable parts of Newcastle (*ibid.*, p. vii). Snow had put forward his theory of water transmission in 1849 in his pamphlet, "On the Mode of Communication of Cholera", a second edition of which was published in 1854; but forty years later, as may be seen from the sceptical comments of Creighton in his "History of Epidemics in Britain" (1894), the theory was still fighting for general acceptance.
3. "Times", 15 August, 17 August, 25 August, 6 September, 13 October 1853.

CHAPTER 18.THE FALL OF THE BOARD.

"I have now been engaged more than twenty-two years unintermittently for ten or twelve hours a day, with little recess or holiday except on the occasion of ill health in successive extraordinary services", Chadwick told Palmerston, as the Board approached the end of the term of office allowed by the 1843 Act.⁽¹⁾ He was paying now the price of that unrelaxing labour. As he entered upon the last half-year of his official career, his reserves of strength, though not of spirit, were seriously lowered by sickness. He had not completely shaken off the effects of a fever which he had caught in the spring of the previous year, on one of his visits of local inspection;⁽²⁾ and he was further weakened by dyspepsia, brought on by irregular hours and habits, combined with his unrelaxing mental exertion and anxiety. His medical adviser had warned him that he must soon seek relief from the excessive burden he was shouldering. But as yet Chadwick had no thought that the coming struggle in Parliament would result in his being thrust into a perpetual and unwilling retirement. The Board of Health, he knew, would be in some jeopardy; there would be harsh things said about himself; and the "Times", the anti-centralisers, the Water Companies and slum landlords, the bone-

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1. E.C. - Lord Palmerston, 31 May 1854.
2. "Last year immediately after a visit of local inspection with my colleague Dr. Southwood Smith and one of the Superintending Inspectors, two of us, the Inspector and myself were attacked with fever. This was the second fever I have had after local and public examinations. With me the last was dangerous, and I have suffered so severely in my general health that I am advised that on that account I should seek some early relief of anxiety" (ibid.)

boilers, and all the rest of that noxious alliance, would take down their weapons for the attack. But he rested his faith in a powerful and well-disposed Home Secretary --- and also, because he was a simple man, in the merits of six years of valuable and conscientious labour. A few months' rest; then two years more at the Board of Health; and after that he might pick up and unravel some other thread of the social tangle, education, perhaps, or police or factory regulation. With some such programme in his mind, he faced with fair confidence the debates which were to decide his future. (1)

It was Palmerston's intention to introduce a Bill by which the Public Health Act should be extended for a further two years. The administrative machinery at the centre, however, was to be changed, in view of the weakness which had revealed itself in the past six years. As he explained, on the Second Reading of his Public Health Act Amendment Bill, to all intents and purposes the Board was an independent body, not controlled by any department, nor represented by a responsible organ in Parliament. At present it was no more bound to obey the orders of the Home Secretary than was the Navy Board or the Victualling Department. He proposed therefore to make it a branch of the Home Office, giving the Secretary of State the power to appoint and remove its members and to issue orders and directions to them. (2)

Thus, by putting the Board under ministerial control he hoped to remove the ground for the charges of arbitrary and irresponsible conduct; and by bringing the department under the

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1. "For myself my anxious wish is to serve with Lord Shaftesbury for the complete practical application of the new principles of works for the improvement of the Public Health in a sufficient number of towns to establish them sufficiently safely and clearly for others to continue. My next desire is so to husband my remaining shattered strength as to be of any further public service with him and your Lordship if possible, in the advancement of the general physical and moral condition of the population" (ibid.)
2. Hansard, vol. 135, pp. 973, 974. 31 July 1854.

protective wing of the Home Secretary to give it effective means of defending itself in the Commons. This arrangement, it became clear at once, would not satisfy the critics of the Board. Judging that the Home Secretary would exercise no real control over the Board and would hold no real responsibility for its actions⁽¹⁾, they demanded that the department should be reconstructed on the lines of the Poor Law Board, with a new Minister, a President of the Board of Health, at its head. It was a sound solution, pointing the way to a healthy constitutional development of the new department; and in this respect the critics were right, as Chadwick from the first had been wrong. But the debates of 1854 did not turn solely upon this point. In pursuing their object the advocates of a Ministry of Health poured indiscriminating abuse upon the men and measures of the General Board. Their victory would bring with it not only an end to the defective administrative structure set up in 1848, but also the expulsion of the three reformers of Gwydyr House and a general condemnation of their policy. Chadwick saw much reason to distrust a scheme the chief sponsor of which was Lord Seymour, behind whom were ranged the representatives of the manifold interests affronted by the Board. Was it to increase the efficiency of sanitary administration that the proposal was made --- or to call a halt to the activity of himself and his colleagues? As he remarked to Russell, the change at the Poor Law Board, which was referred to as a favourable precedent, was thought to work well because no complaints were heard; but though there was somewhat more of

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1. "The effect of the proposed control would be simply this --- that when a grievance came before the Secretary at the Home Office he would write on the corner of it, "Remonstrance --- for the opinion of the Board of Health"; and the Board would send in an elaborate Report to the Noble Lord, which the Noble Lord, according to his own announcement, would not waste his time in reading; and the Board would then act as before, except in cases where the parties aggrieved were in a position, by themselves or their representatives, to make a fight against the Board" (Seymour: Hansard, vol. 135, p. 990, 31 July 1854).

quiet in the House, it was at the expense of progress in the office. (1)

It was a determined and brilliant attack which Lord Seymour ~~delivered~~ launched in the Commons. Into two speeches, compact with ridicule and contempt, he contrived to compress all the criticisms which at one time or another had been levelled at the Board, garnishing his argument with personal details which gave it a convincing ring of authenticity. These speeches, delivered as they were with the authority of a former President of the Board, blasted their hopes, threw consternation amongst their friends, and swept the waverers into the division lobbies against the Bill. No stronger proof was needed of the want of some one to represent the views of the Board of Health in Parliament than the way in which the ex-President misrepresented them almost without contradiction in these final debates.

The first attack was delivered on July 6th, on the Board's supply vote, a motion by Palmerston for £11,855 to defray their expenses for the next financial year (to 31 March 1855). (2) Lord Seymour at once objected to the grant of money for the maintenance ^{of a body} which, instead of carrying out sanitary measures, had made sanitary measures unpopular, since, under its rule, they were brought in, not by the free will of the people, but by the despotic interference of the central Board. Sir William Molesworth had quite properly refused to be responsible for the proceedings of a Board of which he was only an individual member, whose opinion might be overruled by his colleagues.

"When he was himself at the Board of Works, and, after communicating with the other Members of the Government, had made a communication to the Board of Health as to the course which he thought they should adopt, he was told that his proposition was not seconded --- that the members of the Board knew nothing of

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1. H.C. - Russell, 27 July 1854.

2. Hansard, vol. 134, p. 1295, 6 July 1854.

what the Government might wish; they only knew that, at their Board, the proposal was not seconded, and it consequently fell to the ground. Was that the way in which public business was to be conducted? Were they to be called on to vote money for the maintenance of a Board which carried on its proceedings in this way, and set the Government at defiance? The only way to bring these gentlemen to reason was just to stop their salaries

He next turned his scorn upon the Superintending Inspectors and their local Reports. "He had himself visited a town immediately after a Report of that kind had been sent in, and having taken the Report in his hand and tested by personal examination the statements which were made in it, he had no hesitation in declaring that a more exaggerated Report he had never read. The invariable recommendation of the inspector was, that the towns which they were sent to visit should be brought under the Board of Health; and what did the Board of Health do in return? Why, they stated that the inspector had devised a very beautiful system of drainage, and that he had better be allowed to carry it out; and if the town did not adopt this advice, and did not employ the inspector, there were such hindrances or difficulties thrown in its way that it soon bitterly resented it. The fact was, that the inspector brought in the Board, and then the Board brought in the inspector".

After a dig at the Board's engineering theories ("utterly denied by the best engineers of the metropolis"), he described the report which they had published in their defence as "almost an indecent thing to have been sent out by a Government establishment", being full of conclusions "arrived at by the Board of Health, but denied by everybody else". He concluded by remarking how complaints of the Poor Law administration had ceased once Chadwick had been removed.⁽¹⁾

Seymour was heartily seconded by Sir Benjamin Hall, the

member for Marylebone, who thought that the best thing the Government could do would be to give Chadwick and Southwood Smith their money and dismiss them. "The Chief Commissioners, in succession, had found it impracticable to control the mischievous vagaries and extravagances of these two persons, and the only remedy was to get rid of them altogether". And Chadwick in particular, who, after being removed from the Poor Law Board for his "rules of atrocious stringency", had "concocted a pamphlet" on sanitary subjects, on the strength of which he had manoeuvred himself into power at the Board of Health. "He himself was quite at a loss to know what services this man had rendered to the community".⁽¹⁾

It was now plain that Palmerston was to have no easy passage for his Amendment Bill, which he introduced on July 10th.
(2)

In the days that followed the opposition interests mobilised their strength, and, in the ignorance or indifference of the mass of the Commons, the critics increasingly dominated the debates. "The lobby was crowded, with the water engineers at the head of whom was Hawkesley, and with Parliamentary agents, and with parliamentary counsel canvassing against the measure", Chadwick told Ward on his return from the House on July 13th. "Only one petition was heard against the measure: on the other side we had to lament that there was none for". Almost to a man, he informed Russell, he knew the causes of the Board's unpopularity with "the minority called the house". That member, for example, who rose to denounce their proceedings as interference with self-government, was a factory owner, whose chimney poured forth soot on all about him.⁽³⁾

Ill-health unfitted Chadwick for the strain of combat.⁽⁴⁾

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1. Hansard, vol. 134, pp. 1301 - 7.
2. Hansard, vol. 134, p. 1417.
3. "Parliamentary Presidentship. Notes of draught letter to Lord John Russell on the new Public Health Board arrangements", MS, n.d.
4. "I have scarcely physical strength since my last lancing (?)",
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Weak as he was, however, he mustered his energies to repel the attack, pouring out hastily drafted notes of appeal to his Parliamentary acquaintances. It was the fag-end of the session, and few of his political friends were in town.⁽¹⁾ There was Lord Lansdowne, for example, who might make an effective reply to the anti-Poor Law cry which had been raised. But Lansdowne was off to Stoke Park, whence his testimony, if it came at all, must come too late.⁽²⁾ Scarcely a man with political influence had paid attention to the subject, and there was no time now to coach them in even the elements of sanitary administration. Desperately Chadwick looked round for a spokesman in the Commons. He appealed to Sir George Pechell to refute the charge that he had made the Poor Law unpopular and had been dismissed from that office in consequence, reminding Pechell that in the Andover debates of 1846 he had supported the vote of censure on the Commissioners.⁽³⁾ The Board would be entitled to public support, he suggested to the

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(Continued from previous page) to bear up against the wrong".

(E.C. - F.O. Ward, 11 July 1854). J. Hodgson, his physician, wrote to Shaftesbury, 28 July 1854:

"The health of our Friend Mr. Chadwick has for some time been a source of much anxiety to me, and the state in which I have recently seen him induces me to trouble you with a short statement of my opinion of the causes and probable effects of those illnesses from which he has suffered. very

In the spring of last year I attended him during a/severe attack of Erysipelas of the Head by which his life was greatly endangered. This was brought on by exposure to cold in making inquiries in the country relating I believe to the Water Supply of London and was aggravated by a condition of great mental exertion and anxiety. On various occasions I have attended him on account of derangement of his digestive organs caused by irregular hours and habits arising from the peculiar nature of his avocations and engagements. During the last week I have found him suffering from one of these attacks and in a condition which caused myself and his other

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1. E.C. - F.O. Ward, 11 July 1854.
2. Lord Lansdowne - E.C., n.d.
3. E.C. - Sir George Pechell, 12 July 1854. James Heywood replied on behalf of Pechell, 20 July 1854; Sir George thought Chadwick had been ill used in the old Poor Law Commission, and "has quite a wish to take your part".

Wolverhampton member, T. Thornely, if it had done no more than its laborious investigations and reports to convince the medical authorities of the Continent how baseless and useless was quarantine with its obstructions to commerce which cost England alone upwards of two millions a year.⁽¹⁾ The bitter personal hostility he had aroused, he told Hume, was due largely to the complete practical demonstration he had made of Hume's own proposals for reducing the expense of private Bills.⁽²⁾

"You have now known me at intervals for a very long period", he wrote to E.B. Lytton, "and whatsoever weaknesses I may have I trust you will believe I could not have acted in so foolish a manner as to set at defiance a Government, and prevent my chiefs from attending to perform the duties of his office and move illegal coercion or violence towards towns. But if you were to believe I really had done anything deserving of dismissal, I trust that you and your friends will not set the example of a condemnation by acclamation, that you will give us the benefit of the lowest criminals, and ask to have the offences distinctly stated, and proved, and to allow the accused to answer before a Committee if no other competent tribunal ... It is declared however that we are universally condemned: that on account of our proceedings the public and the house condemns us. Now the house is I really believe a few members and the public Mr. Walter of the Times, the views of whose

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(Continued from previous page) Friends much uneasiness, knowing as we did how deeply his mind was agitated by the discussions in Parliament and elsewhere relating to himself. I have felt so much alarm on the score of his health on more than one occasion as to induce me to advise him to seek some alteration in his position which would relieve him from part of his constant and laborious exertions in the public service and I hope that your Lordship will excuse me for thus making my opinion on this subject known to you, believing as I do that the labour and deep anxiety which our Friend has so long endured cannot continue without producing serious evil both to his bodily and mental powers".

1. E.C. - T. Thornely, 17 July 1854.
2. E.C. - J. Hume, 23 July 1854.

engineer I could not promote"(1)

Save an occasional polite acknowledgement, Chadwick had little to show for these attempts to touch the public conscience of his correspondents. He relied too much on arguments in detail, which might convince a man on one point, or convict him of an error in fact, but could not convert him to a principle. While, with his passion for legal exactitude, he was worrying how he could tell members of Parliament what really happened at the Board of Health on that eventful January 30th 1851, they were exercised about such general questions as the limits of central control. There was Newdegate, for example, who thought it "at best a sometimes necessary evil". "I think it destroys self reliance, and prevents individuals of good capacity in their several spheres exercising that amount of independent authority, subject of course to law and the public opinion of their localities, which affords the only inducement to persons in the middle classes to act upon some more generous principles than those of mere self interest; I fear nothing more than the loss of public spirit, and this is the effect of Centralization". And so, he informed S.H. Gael, he found it impossible to speak in support of Mr. Chadwick, the arch-centraliser. (2)

What particularly exasperated Chadwick was the charge that the Board had made itself unpopular by its interference and tyranny --- the Board, which had always been ready to assist the newly formed local authorities with all the technical skill and information at its command. It hardly showed want of confidence, he suggested to the member for Droylsden, when his constituents asked that Mr. Chadwick should go down and give them advice on their works. (3) He sent appeals to the more

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1. E.C. - E.B. Lytton, n.d.
2. N. Newdegate - S.H. Gael, 24 July 1854.
3. E.C. - Charles Hindley, 9 July 1854.

"You some time called upon me and asked me to go down and see the people at Droylsden, to speak to them in relation to their works. You mentioned to me that they preferred to see

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progressive Local Boards, to Woolwich, Hull, Penzance, York, Preston, and Lancaster, urging them to inform their members and Lord Palmerston of the friendly and helpful nature of their relations with the central Board.⁽¹⁾ He received a sheaf of testimonials in reply. "Where would our Sanitary affairs have been had you remained quiescent or willing to accommodate yourself to ignorance and prejudice?" asked the Rev. J. Clay of Preston indignantly⁽²⁾; and he wrote a few days later to tell

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(Continued from previous page) me, instead of seeing an engineer or an inspector of the Board.

I have similar requests from other places which I am unable to comply with. Several places which I could not visit in Lancashire have asked me to recommend to them an engineer.

Now whilst I am personally attacked in the House, by Lord Seymour, and Sir Benjamin Hall as creating unpopularity to the law, and as having no confidence, when in truth upwards of 200 cities and towns have petitioned for the exercise of our jurisdiction would it not be an act of justice to me, to mention in the House, the fact of the application to me from Droylsden if it be as I understood, as shewing that the want of confidence is at any rate not universal".

1. E.C. - William Dunn, 14 July 1854; Rev. Henry Brown, 20 July 1854; E.H. Rodd, 21 July 1854; George Leeman, 22 July 1854. The first of these may be taken as an example:

"Whilst we are accused of coercing Towns, it is rather too bad that Members who know the fact to be otherwise as regards the towns which they represent do not state this.

Might I suggest to you that you would request Mr. Greene when you write to him, that he will just simply state in the house on the occasion of the second reading of our Bill, just what you have kindly stated to me, that be it as it may with other places we have endeavoured to render you every assistance. You will be aware that from local connexion I had endeavoured to promote its improvement before the Public Health Act had passed.

He need not advocate the General measure, or enter into it but in two sentences only state the fact as to Lancaster, in which facts I apprehend the town council must concur as a simple matter of truth."

2. Rev. J. Clay - E.C., 12 July 1854. He enclosed a copy of a letter which he had addressed "to each of our members":

"I have seen with much regret that the Conduct of two of the Commissioners of the General Board of Health has been severely commented on in "the House"; and that the Board has, more especially, been charged with unduly coercing the

(Continued on next page)

Palmerston his opinion that "by acting, to the best of our power, on the suggestions and advice of the General Board --- we have --- under Providence --- hitherto escaped that terrible disease which has severely visited some Towns remarkable for their resistance to the recommendations of the General Board".
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"I have been amused with the rabid attack made upon the Board of Health by Lord Seymour and Sir Benjamin Hall", wrote William Dunn of Lancaster. "There is a great prejudice, arising, as it generally does, from ignorance; but sanitary improvement is too important and the Board of Health has done

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(Continued from previous page) Local Boards.

I had the honour in 1843 to report on the Sanitary State of Preston, and since that time, have watched the proceedings of our Local Board with much interest. I have had good means of knowing that in carrying out their very extensive improvements, they have, from first to last, been able to act in Complete Harmony with the General Board. To be more fully assured to this I made inquiries this morning from some of the gentlemen who take an active part in the proceedings of our Board, and have had my impression fully confirmed. Mr. Miller, whose great influence and high character are well known to you, informed me that he had never been aware of any other feeling between the General and Local Boards than that which is founded on the best understanding. Our Town Clerk placed in my hands a copy of a letter which he had occasion to write to you (Mr. Parker) in June 1852 --- in which he says --- "Great outcry has been made in some few places against the interference of the General Board of Health. The Public Health Act has now been in force at Preston about two years and we have no reason to complain of their interference. They have always been ready to give us advice and assistance".

Mr. A. adds that since the date of his letter the proceedings of the Local Board have greatly increased in magnitude; and that, on every occasion, the two Boards have worked together in the most cordial way"

After quoting a similar tribute from the engineer of the local Board, the letter concludes: "Under these circumstances I venture to hope that as an act of justice to the General Board and the gentlemen chiefly connected with its management, you will think it right to take an early opportunity of stating to the House that, as regards Preston, the very extensive and beneficial measures carried on by our Local Board are quite incapable of justification" (sic).

1. Rev. J. Clay - Palmerston, 22 July 1854.

too much to promote it, to be put down by such wholesale accusations; and I trust the parties will defeat their own object by their excessive violence. Speaking for Lancaster I know we have much reason to be grateful for the ready advice and assistance we have always received from the Board upon all occasions".⁽¹⁾

The letters were comforting, but they had little echo in the Commons, where more attention was paid to the member for Totnes or the member for Marylebone than to some small-town engineer or the obscure chairman of a provincial Board. There were upwards of a hundred members, Chadwick estimated, who knew that as regards their own places the charges of coercion were false, yet said not a word to vindicate the truth. Barnard Castle, Ormskirk, Penzance, Wakefield, Woolwich, wrote strongly to refute the accusation,⁽²⁾ but Chadwick was annoyed at the silence of most of the Local Boards. He heard later that fourteen of them, and probably more, had spontaneously adopted resolutions and sent them to the Home Office.⁽³⁾

As the end of July approached, Palmerston faced the possibility that he might lose his Amendment Bill. One sacrifice might save the Board, he thought --- Chadwick's head. When the suggestion reached Shaftesbury's ears he wrote at once to offer his resignation, telling Palmerston that he must be

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1. William Dunn - E.C., 13 July 1854.
2. J.A. Kershaw (Ormskirk) - Lord ? (Palmerston), 20 July 1854; Thomas Darke (Penzance) - E.C., 22 July 1854; George Tandy - E.C., 26 July 1854 (Wakefield).

"Nothing can be more unjust than the charge of co-ercion if I am to judge of the conduct of the General Board of Health to this district" (George Brown(Barnard Castle) - E.C., 12 July 1854).

"All the Members present agreed with me in thinking, that so far from having reason to complain of attempts at coercion, or of unnecessary interference, on the part of the General Board, we were most indebted to the Commission, and their officers, for their uniform courtesy, and readiness to afford us all the advice and assistance in their power". (Henry Brown (Woolwich) - E.C., 27 July 1854).

3. E.C. - F.O. Ward, 18 July 1855.

held equally responsible for the conduct of the Board; "nothing of importance has ever been decided at the Board to which I have not been a party".⁽¹⁾ With a majority of new members on the Board, thought Shaftesbury, the hostility of the public might be somewhat abated, and Palmerston might thus be able to retain the services of Southwood Smith during the cholera epidemic. But the Doctor loyally followed his colleagues, being reluctant as Chadwick told Russell, to act with persons whose views and habits were unknown to him.⁽²⁾ When Palmerston rose, therefore, on the Second Reading of the Public Health Act Amendment Bill on July 31st, he held in his hands the resignations of all three members of the Board. Whether or not they took effect would depend upon the outcome of the debate.

Lord Seymour now delivered his second and more damaging attack.⁽³⁾ He dismissed in slighting terms the Board's work over the past six years. For London they had recommended "such supply of water as could be scraped out of the sand of the Surrey hills"⁽⁴⁾; the Metropolitan Commission of Sewers had resigned in a hasty rather than adopt Chadwick's tubular drainage; the Board's reports, printed by the thousand, merely embodied the preconceived views of three or four prejudiced men. The Metropolitan Interments Act aroused his particular contempt. They had spent eighteen months and much money in collecting information, "or what purported to be information", on the interments question, the upshot of which was that no one was to

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1. Shaftesbury - Palmerston, 27 July 1854.
2. E.C. - Russell, 29 July 1854.
3. Hansard, vol. 135, pp. 980 - 994. Chadwick drew up a memorandum rebutting Seymour's argument point by point. Parallel passages from this document are quoted in the following foot-notes.
4. "The evidence on which the Board founded their advice was a larger mass of important information than had ever previously been collected on the same subject. It was circulated to all the Local Boards and to Surveyors, and has been sought for by Engineers as a standard elementary work on the subject of the combination of the Water Supply and the drainage"

die but the Board ^{were} ~~was~~ empowered to pounce upon the body. "All the ordinary feelings of mankind were to be set aside, all the tender emotions of relations to be trampled upon, all the decency of mourning, all the sanctity of grief to be superseded, in order that the Board of Health might get their funeral fee".

(1) The Act had been passed largely owing to the popularity of Sir George Grey, who had asked him personally to see that there was no delay in putting it into operation. "He had, accordingly, determined, at much personal inconvenience, to remain in town during that autumn, in order to carry out his right honourable Friend's wishes into effect, and had taken no vacation whatever, with the exception of a few days at a time, which themselves were spent in visits to places where the Act was to operate⁽²⁾..... After Dr. Smith had been a fortnight in office, he went to the Board to hear what they proposed and were prepared to do. He asked them, "Well, gentlemen, have you got into order? and if so, what are you going to do? Have you made up your minds as to what shall be your first step?" "Oh, yes", said these gentlemen, "we have made up our minds what we

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1. "Now if ever there was an official investigation in which the ordinary feelings of mankind previously overlooked the decency of mourning and the sanctity of grief were considered, it will be acknowledged on the examination of the reports on the subject by impartial persons to be the Metropolitan scheme of extramural sepulture.

A great living writer speaks of that report emphatically as an honour to humanity. The measure by which Lord Seymour superseded it was one which after the feelings of mankind and the peculiar sufferings of the poor had been displayed, and provided for sets them aside scornfully and tramples upon them".

2. "Now the whole of this is at variance with the truth. He declared at the first and at all times that he could not attend; he moreover avowed to the Members of the Board that his rule was never to act until he was obliged, and then to do as little as he could. He acted in accordance with this declaration, and not in accordance with his promise to Sir George Grey to expedite the matter; he did not attend the deliberations of the Board, he made no offer to take part in them, though it was his right as well as his duty to do so".

shall do". "What is that?" "Well, we're going to Paris" ...
... and the Board accordingly went to Paris, taking their
secretary with them to write their letters and pay their bills".

(1) On their return, he had objected to the employment of
Paxton and Dr. Brown, and had felt his objection justified when
the Exchequer had remonstrated with the Board for "determining
upon expensive arrangements altogether without the sanction of
the Treasury". (2) He had not attended all the meetings of his
colleagues, who were in the habit of holding boards every day

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1. "It was not the first step of the Board, and he was never
told that it was the first step. The first steps were taken
immediately the Royal assent was given, and they are stated
in page 1 of the printed Minutes laid before Parliament.
Whilst the large measures therein recited, and in other
Minutes from the 5th of August to the 4th of September were
in progress, it was requisite to make other preparations for
the work in hand.....

"To collect information upon which to lay down a plan in
outline for legislation is one thing; to get information to
fill up the plan in detail for subsequent practical
execution is another and even more important step The
Board considered it necessary that they as well as their
chief officers, who were charged with the executive measures
should see with their own eyes the practical working of a
change of system which had been in operation for a number of
years in the largest capital in Europe, and they had
moreover important questions to determine, which they
considered might be the most economically determined on the
spot" (E.g. the medical considerations involved in the
removal of the remains of those who had died of contagious
diseases, and the protection of the survivors). If Seymour
had taken an account of the Board's expenses on this trip to
the Exchequer, he had done so without informing the Board,
and he had neglected to point out that the £400 spent was a
means to a very large economy, not less than a quarter of a
million on the cost of funerals in London.

2. The Board had thought of seeking the advice of Paxton on
the vegetation and lay out of thier National Cemetery; and
had consulted Dr. Braun in order to avoid those violations
of taste in monumental decoration which made some burial
grounds "mere stone quarries". "This recourse to the
highest available talent is sneered at by Lord Seymour who
speaks as if the subject in hand were common churchyards,
as if moreover in his view they required no special care".
"The only expense incurred was £20 for one report from Dr.
Braun on several of the trading cemeteries"

for some three or four minutes per diem. But he had gone to Gwydyr House on January 30th 1851, to tell them what steps the Treasury thought they should take to carry out the Interments Act. "The Board read to him a long letter of seven pages, which they had prepared, and in which they argued the point with the Treasury". And finally they had told him that his proposal was not seconded.⁽¹⁾ True, Lord Shaftesbury had since denied that this was what had occurred; but "Lord Shaftesbury, speaking upon his honour, spoke, it was to be remembered, upon the information of the secretary --- not having been himself present on the occasion --- whereas he (Lord Seymour), having been present, spoke from his own recollection". After this episode, "he had ceased to attend the Board when he had found by experience that it was to no purpose that he attended a Board

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1. "This statement is so couched as to imply a misrepresentation to the house; namely, that the Board were about to proceed with the execution of a new scheme new and unauthorised by the Government, and unsanctioned by Parliament, whereas the grounds for their measure had been submitted with all the evidence to the Government and to the public. The scheme was fully considered by the then Secretary of State, Sir George Grey, who heard the objections made to it by deputations from undertakers, vestrymen and others and decided against them. In the Act provision was made for the purchase of the whole of the trading cemeteries. The duty which remained to be performed was to comply with the provisions of the statute, the passing of which was made the subject of congratulation in Her Majesty's speech at the close of the session. The course which his Lordship thought fit to take whether at the instance of the Chancellor of the Exchequer or upon his own suggestion was against the known intent of the statute. On the grounds stated in the letter to the Treasury by which the Board would abide the plan proposed by Lord Seymour was absurd in itself and on the consideration of those grounds was rejected by the Treasury whp after several months of time money had been lost and evil had been protracted by Lord Seymour's opposition agreed to the Board proceeding with the measure according to their original report.

That whilst the Secretary of State for the Home Department and the Government were in favour of the plan the Treasury was against it was early intimated and clearly made manifest. It was indeed early intimated before the Chancellor of the Exchequer's objections were received that the scheme sanctioned by Parliament would not be allowed to work".

where he was systematically overborne, while he could occupy his time to really useful public purposes in his own office". He had told Shaftesbury his decision: and "if he had said this to the noble Earl in confidence, his confidence had been much misplaced, for the noble Earl had taken the very first opportunity of publishing what he had said, when he thought he could bring it out to damage his character".⁽¹⁾

Turning next to the Board's conduct in the localities, he asserted that it was against the principles of the constitution for a petition from one-tenth of the ratepayers of a district to

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1. "160 Boards took place which he never attended, until on one occasion when he did attend, when a measure which he proposed, was opposed not by Mr. Chadwick but by Lord Shaftesbury

The members of the Board severally declare that the business of the Board never was conducted in such a way as Lord Seymour represents, that they are unaware of ever having received any communication from the Government through him as a communication or expression of a wish of the Government in the manner represented, and that they entered very fully into every proposition he made with a desire to its adoption. In respect to his being told that he had no seconder, the recollection of every one present was consulted at the time he made the statement, and every one was then prepared to affirm that they remembered nothing of the kind taking place and believe that he never was so told. The only pretext for such a statement was an entry made in the minutes, which the secretary stated he made himself believing it to be the common form, but that he never heard Lord Seymour told that his motion had not been seconded.

As he had taken no part in the preparation of the law, Lord Seymour was unaware of its difficulties and if he had consulted the Government as he now states he could not have informed them correctly for on the opposite course to the one he proposed on the particular occasion to which he refers being submitted to the Government from the Board with the notice that he was dissentient it was approved by the Government.

On no occasion did it happen to Mr. Chadwick or Dr. Southwood Smith to move to set aside any propositions made by Lord Seymour. They on all occasions endeavoured to treat him with the respect due to his office and position, whilst they had to pass over gratuitously offensive behaviour on his part towards themselves which in one instance Lord Shaftesbury considered ought not to be passed over, and made it the subject of a remonstrant correspondence and resolution

bind the rest. Moreover, opponents in the locality had no power to test the genuineness of the signatures, and, in fact, the Inspectors refused to allow the inhabitants to see the petition. "The jobbing of the Board of Health presented an amount of dirt which must be very startling to the clean party in question The whole thing was perfectly monstrous. Some engineer whom no one else would employ, or some medical man whom nobody would consult, would be anxious to have the Health of Towns Act applied to his district; he would then get a few signatures, and would send up his impartial suggestion that a particular place could not get on without the interposition of the Board; the Board, jumping at the suggestion, would forthwith send down one of its elect inspectors, equally craving employment, who would, on arrival at the luckless place of his destination, place himself in communication with the doctor or engineering adviser, who being the person who had communicated with the Board, would thus have acquired a locus standi; the united pair would then consult with the surveyor of the local board, whose opinion, seeing that he could only be removed by the central Board, would be sure to take only one direction, and, by this combination of powers, the principle of self-government was utterly violated under the constitution of the Board".

It is interesting to speculate on the working of Seymour's mind when he made these assertions, each with its small portion of fact economically admixed with a large amount of obliquity and suppression. In his limitations and assumptions Seymour is a type of a large and influential class, who, then and since, opposed the progress of social reform. There is no need to postulate any deliberate falsehood, any planned and cold-blooded murder of the truth. It was not that he consciously cut and selected facts to suit his purposes; but rather that, like iron filings in a magnetic field, facts were bent and patterned by the pull of a strong mind set in decided

courses. The whole tone of his thought was opposed to the Board of Health and what it stood for. A long process of conditioning by personal contacts in family and political relations had bred in him an aversion --- so far removed from the sphere of reason that it might be termed instinctive --- to the idea of interference with the business of the governing classes, whether that business was in the form of commercial undertaking or of local and central administration. He hated state intervention, ~~and hated everything~~ "the interfering with everything and everybody" as he called it⁽¹⁾, and at the Board of Health he found himself associated with men who looked on such intervention as a duty. It was intervention, moreover, in matters whose importance he lacked the knowledge and the sympathy to appreciate in full. The technicalities of sanitation, the subject matter of sanitary investigation, were foreign to him; and, because foreign, diverting. He could scarcely repress his derision at the thought of a Board solemnly discussing the dimensions of earthenware sewer pipes or the construction of Reception Houses for the corpses of the poor. And, finally, he detested the members of the Board. They were enthusiasts. They stuck out for principles when they could have had an easier time by listening to the Treasury. Like one of the worldly wise at a revivalist meeting, he was bored by their lecturing, resentful of their assumption of moral superiority, uneasy in the presence of their earnestness.

There was no one in the Commons sufficiently informed and sufficiently convinced to stand up to Seymour's onslaught. Many who heard him must have believed, like historians of a later generation, that he "spoke with authority because he had at one time been an ex officio member of the Board".⁽²⁾ Sir William Molesworth, the Board's official spokesman, did not open his mouth in their defence; and, if he had been willing, he knew

1. Hansard, vol. 135, p. 990, 31 July 1854.

2. J.L. and B. Hammond, "Lord Shaftesbury", p. 166.

nothing about the subject. When Shaftesbury rose to make his reply in the Lords, it was many hours later, after he had had time to see the reports in the "Times". After Seymour's first attack he pointed out that Seymour had put in no more than seven appearances at the Board, and that it was on the sixth of these that he made his proposition about metropolitan interments⁽¹⁾; the impression given by Seymour that he had been driven away by the constant opposition of Chadwick and Southwood Smith was thus shown to be almost entirely without foundation. The Lords gave him a sympathetic hearing when, after Seymour's second speech, he declared "there is hardly an assertion which might not be met by as flat a contradiction"; but it had little effect on the Commons when he quoted the letter in which Seymour had stated that he would be unable to attend the Board without neglecting his duties at the Woods and Forests; or when he showed that the average attendances at the Board were not three or four minutes, but five, six or seven hours, even ten during the cholera, and that his hard-pressed colleagues were obliged to take some of their papers home at night.⁽²⁾

The crucial debate of July 31st, therefore, was a victory for Lord Seymour. A storm of hate and indignation burst over Chadwick's head. Before the fury of that general condemnation even his friends hesitated or were silent.⁽³⁾ His great

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1. Hansard, vol. 135, pp. 236 - 3, 14 July 1854.
2. *ibid.*, pp. 1079 - 83, 1 August 1854.
3. A letter of apology for the harshness of Joseph Hume's speech was addressed by Maria Hume to Mrs. Chadwick (3 August 1854):

"I assure you we one and all much regretted it when we saw it reported next day in the Papers, and exclaimed against him for having so spoken, and the more so, because we all know, that however he may have disapproved of Mr. Chadwick's management in the Board of Health, he always allows, that he has been a zealous and industrious public servant, and deserves well of the public The only explanation of his apparent unqualified condemnation is to be found in the circumstances of the moment: it was towards the close of the debate, the House very impatient, great

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public services were forgotten in an unreasoning gesture of revulsion.⁽¹⁾ He was the bureaucrat and centraliser, who had sought to confine the liberties of the individual within the strait jacket of a system; the ambitious careerist, perpetually intriguing for greater power and crushing without pity all who opposed his will.⁽²⁾ The legend was now complete. And though

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(Continued from previous page) fear of losing the Bill, which Mr. Hume was very anxious to avoid, and the feeling of the House being strongly against Mr. Chadwick (you will not be offended at my telling this admitted fact) Mr. Hume thought that the assurance of his, and one or more of his colleagues', removal, and an intention to reconstruct the Board entirely might induce the House to pass the Bill. He no doubt should have named others as well as Mr. Chadwick, and have qualified this implied censure with an expression of his more favourable general opinion, but in the hurry of the moment this escaped him --- and truly sorry we all are that he should therefore appear before the public as the special opponent of Mr. Chadwick".

1. "The intensity of the prejudice now raging against you is very extraordinary and not to be accounted for by your acts of commission or omission under the Public Health Act. I wrote and spoke to several Members of Parliament and their Agents concerning the first Bill but the answers I received were for the most part very discouraging. It is the fallacy of false Inference that has condemned you and made so many persons forget your past merits in the apprehension of fancied Danger. This bugbear will in time cease to frighten the minds of the weak and of the sincere but not enlightened portion of the public and then you may attack the roguish section with a chance of success. Depend upon it Justice will be done to you sometime or other. The glory of the sanitary movement is imperishable. Near twenty years have now elapsed since you and I first discussed this matter in Mr. Senior's House at Kensington and you have pursued it with unceasing diligence and rare devotedness ever since". (S.H. Gael - E.C., 20 August 1854).
2. "In a word, Mr. Edwin Chadwick suggested the original inquiries; settled the plan of operations; marshalled, selected, and digested evidence; grew from secretary into a commissioner; issued rules, regulations, and maxims; chose his colleagues, his servants, and his witnesses, and in his official capacity, under the mantle of the Board, tried, condemned, and sentenced his opponents; and recommended the Board, that is to say, himself, for further powers, privileges, and honours. Never has the expedient of reiteration been so vigorously and unscrupulously used,

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his friends might comfort him with the reminder that Wellington had become a national hero after being pelted in the street, (1) so long as he lived Chadwick's character and ideas would never be entirely freed from the taint of that suspicion. (2)

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(Continued from previous page) page after page, volume after volume, pamphlet after pamphlet, speech after speech; the same reckless assertions are supported by the same fallacious evidence, selected and cooked for the occasion, and the same certain conclusions are arrived at, that is to say, that every city, town, and village may obtain universal health and a large income from the sale of sewerage on one sole condition --- unquestioning, blind, passive obedience to the ukase, decree, bull, or proclamation of the autocrat, pope, grand lama of sanitary reform, Edwin Chadwick, lawyer and commissioner He was determined that the British world should be clean, and live a century, but on one condition only --- that they consented to purchase the real patent Chadwickian soap, the Chadwickian officially-gathered soft water, and the true impermeable telescopic earthenware pipe, and when they did die, were interred by his official undertakers in the Chadwickian necropolis". ("Engineers and Officials", pamphlet, anonymous, 1856)

1. William Stuart - E.C., 19 August 1854.
2. When, two years later, a public subscription was being raised for Southwood Smith, the originators (Dr. Waller Lewis and R.D. Grainger) decided to keep Chadwick's name off the Committee lest it "ruin the whole proceedings". "Moreover", Chadwick told Sir John Easthope (n.d., 1856), "they were of opinion that it was essential to the measure that it should be kept clear of the General Board of Health".

"I need not tell you", he went on, "that in Parliament, in the press I have been for years singled out for individual attacks for measures of joint action in which I have been precluded from calling for explanations and making any individual defence. These attacks have been chiefly in expressions of hate and scorn as towards some odious character. He whose nights as well as days were engaged in the gratuitous (service) of devising means of preventing some of the chief evils of humanity was treated as if he were absorbed by some terrible vices. The active hostility has been invariably traced to disguised enemies of sanitary reform, who have seen that the most effectual way of damaging them would be to damage him whom they deemed to be its most active promoter. It has been a most mischievous error to hold these attacks to have been of no account: --- they have had their effects: and have been the occasion of large disaster to the public; the Lord Advocate declared

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On the following day Sir William Molesworth introduced a Public Health Bill, to constitute a new health department on the same lines as the Poor Law Board, comprising a President with a secretary and an under-secretary. Edwin Chadwick was to be pensioned off with a £1,000 a year.⁽¹⁾ In his letter of resignation to Palmerston, Shaftesbury had written with some bitterness, "in retiring from these duties, I cannot but express my regret that our five years of intense labour, productive, as will, hereafter, be seen, of great benefit to the country, have been subjected to so much suspicion and calumny".⁽²⁾ Chadwick was even more bitter, as he reflected how he had been "discharged under the contumelies of the opposition as well as a reduced income, whilst if I had been in an office abolished on account of its inutility I should have retired like the Masters in Chancery on a full salary".⁽³⁾ But the blow fell heaviest on the unoffending and uncomplaining Southwood Smith who had been taken for six years from his profession, and now, "without fault proved and indeed after extraordinary and successful labour is dismissed a ruined man without any compensation whatsoever".⁽⁴⁾

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(Continued from previous page) that they had created so strong a prejudice against me in the minds of the Scotch members, they knew not why as to prevent the extension of the Public Health Act to Scotland, and they supplied the majority by which the first Board of Health was destroyed. There are few who are aware of the mischiefs which it has done: of work commenced, left uncompleted and misdirected, and of the further large works designed, to which there can now be no probable commencement. To a competent and impartial person who would fully examine the subject it would be no extravagance to say that the loss of life in the last war, was small in comparison with the loss of life maintained by the public defeat on the Public Health Act. The impression created must be that there really must be something odious about a person whose character has occasioned so much hostility to a really beneficent course of legislation ..."

1. Hansard, vol. 135, pp. 1138 - 42, 1 August 1854.
2. Shaftesbury - Palmerston, 27 July 1854.
3. E.C. - ? , 7 August 1854.
4. *ibid.*

It would be some comfort if the Board fell into good hands. Lyon Playfair would be a great acquisition, Chadwick suggested, and the sight of him as secretary or chief executive officer would give satisfaction to the Inspectors.⁽¹⁾ But the Government had decided that the capitulation was to be complete, and that to silence the critics they must be taken into partnership. Chadwick read with horror the announcement that the President was to be Sir Benjamin Hall, the voice of the Marylebone vestry, and the Secretary Tom Taylor, the man who wrote lampoons for "Punch" when he should have been drafting bye-laws.

"All that the anti-centralisers will have gained, is a huge imposture, of a man who will be engaged ten hours a day in Parliament, who will have what he calls the duties of society to attend to, and his constituents to attend to, who having come into office entirely ignorant, will have no time and little opportunity to explore and gain knowledge for himself, and who will be the mere puppet of an intriguing secretary whose interests and time have been away from his duty, who is shallow in his knowledge and incapable of himself of making any substantial progress. The only chance for the public is that either he or the president may be advised by some of the inspectors and being under the motive to do something and to show a contrast, may adopt the advice".⁽²⁾

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1. E.C. - ? (Palmerston or Russell), 4 August 1854.
2. E.C. - F.O. Ward, 14 August 1854.

"I see Sir Benjamin Hall in his speech talks of making his board an advisory Board. As if our board had not been an advisory and suggestive Board to an extent entirely unexampled! No administrative Board ever bestowed so much labour in preparing instructional information as ours did

.....

We in no one instance, except in the cholera period against the City of London Union took any hostile steps as against any local authority whatsoever. The fact is however that we had no power to do otherwise. He has a large "But" if they neglect to do what they ought to do, he will step in on behalf of the General Public". (ibid.)

He thought wildly of a dramatic intervention in the forthcoming election contest in Marylebone, and even roughed out an address to the ratepayers, asking them to consider the strictures passed by the Lords on Hall's speech, and then go to the polls and give their votes as they would give a verdict before the country. "The clergy and churchmen must be properly against Sir Benjamin for his insults to the Bishop of London. The case of Dr. Southwood Smith ought to rouse the medical profession against the mode of his displacement and the presumption of so ignorant a layman occupying the place of Minister of Health. The affront to Lord Shaftesbury should be made apparent and should engage all the religious communities. To engage any sympathy for myself would I apprehend require more labour than there is time for".⁽¹⁾

Though Chadwick was denied the pleasure of seeing the usurper humbled by the judgment of the Marylebone voters, fate dealt him satisfaction of a different sort. For the critic in office found his answer. Very shortly after his appointment, as he watched the machinery Chadwick had designed and the men Chadwick had trained going to work in the cholera epidemic, Hall was confiding to one of the Inspectors that he was astonished to find how much there was to be done, and how much his derided predecessors had done; and he observed no three men could possibly have worked harder.⁽²⁾ "So far as I can judge", Dr. Sutherland told Chadwick, "the President seems quite disposed to make himself completely master of the sanitary subject, to avail himself of every means of information, and to take his place in the House at the beginning of next session, as a Reformer, resting his position on his own knowledge and observation, and ready to face any opponents who may appear. I may state in confidence, that both Mr. Austin and I are rather afraid of his going too fast, and raising the interests against him. It has indeed happened with him, as with every other

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1. E.C. - F.O. Ward, 13 August 1854.
2. E.C. - F.O. Ward, 26 April 1855.

person, who has taken any pains in the way of enquiry, that he is astonished at the magnitude of the evils with which he has to contend, while his sympathies appear to be all engaged in their removal".⁽¹⁾ And presently "the London Engineering Clique" was showing that it was as dissatisfied with the new President as with the old Commissioners.⁽²⁾

Shaftesbury had found a fit text for the Board and their officers when they assembled for their parting dinner, in the shadow of public opprobrium and still smarting from the parliamentary boot. "We are troubled on every side yet not distressed; we are perplexed but not in despair, persecuted but not forsaken, cast down but not destroyed".

What thoughts were passing through Chadwick's mind as he listened to Shaftesbury at that final banquet? Darkened with the bitterness of those last weeks, they must yet have contained much to console and to satisfy. A rest and a thousand a year pension had never been better earned. In the twenty-two years since Nassau Senior had introduced him into the public service, he had been engaged continuously in the diagnosis of social disease and the prescription of legislative remedies. He had been a major influence on three Royal Commissions of the first importance, and produced a series of state papers unequalled for the clarity and force of the administrative intelligence they displayed. Since its beginning he had been the heart and brain of the public health movement. His foresight had equipped the Registrar General with authority to draw up the national balance sheet of sickness and death. From the Poor Law Office he had guided the nation-wide inquest which paved the way for legislation. He had been the first to see as a whole the

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1. J. Sutherland - E.C., 11 September 1854.
2. J. Sutherland - E.C., 13 October 1854.

problems of municipal engineering, the inter-dependence of drainage, water-supply, and sewage disposal. By the impact of his own reports and the personal influence he had exerted on politicians and the leaders of outside opinion, he had in ten years educated the law-making classes to appreciate the issues at stake, and forced the first Public Health Act on the statute book. From Gwydyr House, with an inadequate Act, he had done what he could; and it is just to say that in his single-minded pursuit of the public welfare, and the fertility of his projects for social betterment, he had done more than any other man of his time would have had the courage, the ability, and the toughness to attempt.

Throughout these years the motive principle of his social philosophy was the "Sanitary Idea", the conviction that the wretchedness and ill-health laid bare by his investigations were preventible; and the characteristic quality of his administrative theories was the assertion that this could be done by government, the perception that the organised power of the state was a tool which could be sharpened and applied to the shaping of the social environment. To the men of his day his exposition of distasteful facts, with a brutal insensitiveness to the feelings of the respectable interests concerned, was like surgery without anaesthetics. And the remedies he prescribed --- the inspection of factories and mines, the regulation of building and of noxious trades, the recognition of employer's liability for workmen's accidents, the public ownership of railways and water supplies, the extension of Whitehall's authority into the localities --- together constituted a confining system of rules and restraints which freedom-loving capitalists and Corporations regarded with horror, and for which they could find no greater condemnation than to trace it back to its un-English origins.

On these questions the balance of opinion has radically shifted, and it has shifted in favour of Chadwick. A

generation accustomed to government intervention on a scale he never dreamed of will find little to shock in his centralising theories, and will ascribe the outcry against the first Board of Health less to the violence of a doctrinaire department than to the restiveness of local authorities under an unfamiliar curb. In an age of municipalised gas and water and transport, of nationalised railways and coal-mines, of Ministries of Health, Labour, and National Insurance, of public boards administering services as diverse as broadcasting and airways, the voices of the champions of laissez faire and private enterprise speak with less assurance and authority. It has been Chadwick's misfortune, however, that he has continued to be seen through the eyes of hostile contemporaries and judged by their standards. His reputation would rank higher if subsequent historians had examined their witnesses and allies more closely, and asked whether in fact a Cornwall Lewis or a Lord Seymour stood for a more enlightened and humanitarian administration. Chadwick has been further unfortunate in that of all his work it is the Poor Law which is best known and which his name first recalls. It is not generally realised, first, that the maimed and partial measure of 1834 embodied only part of the broader schemes of preventive administration he had in mind; and secondly, that his years as a subordinate at Somerset House formed a less valuable episode in his career than his years as the animating spirit of the General Board of Health. For this reason, perhaps, he arouses in the authors of the "Minority Report on the Poor Law" of 1909 an antagonism one would not expect from the authors of the "London Programme" of 1892.

He lived thirty-six years after his retirement, busy, useful years, in which he played a prominent part in spreading the gospel of sanitary and administrative reform. We catch characteristic glimpses of him from time to time --- quietly

telling the Aberdeen Town Council that the normal death rate of their city was 14 not 24 per thousand; instructing Louis Napoleon in the virtues of sewer manure, and telling Bismarck how to spend the millions of the French indemnity by improving the towns of Germany; giving evidence to the Newcastle Commission on the effects of physical training in the half-time schools; contesting without success the University of London seat and three or four others; playing with newfangled notions, overhead railways, the American writing machine, tricycles for policemen, ventilation towers for the great towns. He talked and wrote without rest, addressing the British Association on the benefits of competitive examinations, and the Social Science Association on the military lessons of 1870, and discussing at the soirées of the Society of Arts anything from irrigation in India to the best methods of constructing a school; turning out correspondence and pamphlets inexhaustibly, letters to the "Times" to urge an omnibus monopoly for the metropolis, memoranda to Mr. Gladstone on the advantages of a uniform cheap telegraph service, papers for Florence Nightingale on the health of the army in India. And, near the end, when he was old and forgotten, and a little silly, perhaps, and his political friends were all dead or as forgotten as himself, we find him trying to persuade Lord Salisbury to get him a peerage. Walter of the "Times" went to the Lords, and the Chairman of the Metropolitan Board of Works, but there was no official recognition of the services of the greatest of the sanitary reformers. Not till a few months before his death was he granted his delayed and disproportionate honour. "Had he killed in battle as many as he saved by sanitation, he would have had equestrian statues by the dozen put up to his memory".

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Finally, as the writer of the "Times" obituary remembered him at the Athenaeum, his "benevolent and leonine face, wrinkled with the lines of thought, and surmounted by the

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1. "Daily News", 7 July 1890.

black skull cap" --- his features wearing "an expression of severe complacency".⁽¹⁾ And why should he not be complacent? His countrymen had good reason to thank him. He had played the chief part in founding a new department of Government. More than any other individual he had been responsible for civilising the life of the great towns. Owing nothing to wealth or birth, by sheer indefatigable industry and ability he fought his way to a unique place in British administration. He did not touch a field of government activity where he did not introduce some fertile idea or strengthen, with observation and experience, some proposition already advanced. It is true that while he was in Whitehall everything he touched seemed to crumble in his strong, clumsy hands into inertia and frustration and failure. In part that was due to his personal defects. To the end he remained an immense, tireless dynamo which it was difficult to harness. Far more were his failures due, however, to his virtues than his faults --- to the courage that did not fear to challenge accepted principles, and the devotion to public duty which would not compromise with overmighty interests. It was the recompense for many disappointments, and the reward for his unquenchable optimism, that he should live to see that the current of the age was with him, and his enemies at the last confounded.

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1. "Times", 7 July 1890.

APPENDIX.FACTORY COMMISSION, 1833.

In March 1833 Lord Ashley, who had recently succeeded Michael Thomas Sadler as Parliamentary leader of the Ten Hours agitation, introduced his Factory Bill. It provided that no child under the age of nine should be employed in the factories; that no person under eighteen should work more than ten hours a day, and eight hours on Saturdays; and that no person under twenty one should work during the night (from 7 p.m. to 6 a.m.). The Bill confronted the Whig Government with a dilemma. Public opinion was not likely to tolerate the continuation of a "Yorkshire Slavery", the physical and moral effects of which had been powerfully illustrated by the witnesses before Sadler's Committee of 1831. But alarmed manufacturers were persuaded that the Ten Hours men were going too far and too fast. If the inquiry had been pushed further "as many sleek, straight and chubby children would have been brought forward as there had been deformed and emaciated ones".⁽¹⁾ Even if it were granted that a case existed for the protection of children in factories, argued the employers, the operatives were using pity for the children as a cover for gaining their real objective: the limitation of the hours of adult workers, and the recognition of the pernicious principle of government intervention in the contractual relations between master and man. Moreover, if factory hours were cut to ten, profits and wages must decline accordingly; and English capitalists, whose predominance in the world's markets depended on working their fixed capital to the

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1. Lord Morpeth; Hansard, vol. 15, p. 391. Morpeth stated the Committee had arranged that Sadler should first call his witnesses and go through his case, and then the opponents of the Bill should have their hearing; however, the session ended as Sadler's evidence concluded, and before his opponents had begun.

limit, would suffer in competition with foreign manufacturers. It was darkly hinted that capital might fly for refuge to countries where the government was more accommodating.

By a majority of one Wilson Patten, Tory member for North Lancashire, speaking on behalf of the Association of Master Manufacturers, carried a motion referring the question to a Royal Commission⁽¹⁾; and, despite an appeal by Ashley, the Government decided that the inquiry should be a secret one. It was so obvious a retreat from the plain lessons of Sadler's Committee that the workers were in no doubt that the Commission would result in nothing but elaborate excuses for inaction. The Short Time Committee of Huddersfield petitioned that "the persons who have authorised this method of secret examination may be impeached", alleging that "the enemies of the poor have added treason and insult to injury, by abusing the prerogatives of the Crown, and appointing a set of worthless Commissioners to perpetuate infant murder".⁽²⁾ If this indeed was all that was in the mind of the Government, they made a cardinal error in appointing Chadwick as one of the three Commissioners.

Chadwick was still marshalling evidence for the Poor Law inquiry when the Government, eager to reach an early decision on factory legislation, made this further call upon his now acknowledged powers of investigation. It was, apart from Chadwick, a Commission of the traditional Whig type --- Thomas Tooke to give to the inquiry the authority of the fashionable economics; a Benthamite physician, Dr. Southwood Smith, to deal with the medical evidence; and, associated with these, a dozen other investigators of uneven merit, some of outstanding ability, others with virtues known only to the Patronage Secretary. A central board of three, Chadwick, Southwood Smith, and Tooke, took control of the inquiry, and the

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1. Hansard, vol. 17, pp. 79 - 113, 3 April 1833.

2. "Leeds Intelligencer", 22 June 1833.

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Government nominees, who could not be trusted to act singly, were sent out in pairs as Commissioners Itinerant. One or two ill assorted characters, as Chadwick recounts, were thus coupled, who quarrelled violently, and at times came near to sending challenges to one another; and then, when the central board tried to intervene, vented their spleen on the peace-makers.⁽¹⁾

An interesting series of letters from J.N. Cowell, one of the Commissioners sent to Manchester, illustrates how they interpreted their instructions to seek "the whole truth respecting the employment of children in factories".⁽²⁾ Earnest and well-meaning, anxious to do the right thing, but judging what was right by the inevitable and unconscious prejudices of his class, he had gone out expecting, as he says, to conduct a quiet and methodical study of the situation.⁽³⁾ He found himself, to his bewilderment, the target for conflicting agitations. To allay suspicion he decided to hear the operatives first, but a meeting of the workers promptly resolved against giving evidence lest they should be dismissed in reprisal.⁽⁴⁾ A deputation from the workers presented him with a remonstrance, expressing respect for the King and Constitution, but an "unconquerable aversion to, and suspicion of, the effects of any enquiry so constituted".

"The evidence obtained before the Committee on Mr. Sadler's Bill was called from the suggestions of those factory Masters and their friends and dependents who have avowed their

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1. E.C. - Bishop of London, 16 December 1844.
2. "First Report from Factory Commissioners", 1833 (450), xx, p. 2. The Instructions to the itinerant Commissioners, drawn up by Chadwick, stated: "It should be distinctly understood that the Inquiry is in no respect to be narrowed to the views of any class, or any party or interest" (ibid., pp. 79 - 85). A letter from the Commission to Lord Ashley, 20 April 1833, asked him to inform his supporters that any information or suggestions would be welcomed.
3. J.N. Cowell - E.C., 6 May 1833.
4. J.N. Cowell - E.C., 2 May 1833.

heedlessness of the waste of infant life and strength and the degradation in every way of the factory population when put in competition with the profits of capital invested in Steam Mills. That evidence is now admitted by the intelligent part of the public to be conclusive proof of the fact that the factory system, as at present worked, does tend to deprave and degrade the labourers employed in it, and, what is our most especial cause of grief and despair, that it shuts out infancy from the chance of any human instruction, dwarfs their bodies, twists and bends their tender bones and deforms their figures. The numerical statements of deaths, deformities and disease furnished to Parliament leave ^{room for} no doubt on these heads.

That evidence taken before a competent and ordinary Court of Enquiry is violently and without reason put aside to make way for a mode of enquiry chosen by those whose interests are openly opposed to the physical and moral well being of the factory labourers, and, these very parties, as we perceive by the series of questions issued to them, are, in their own counting houses without the responsibility of an oath or the restraint which would be imposed by a face to face examination and the chance of cross examination, to give such answers as they think fit, which answers, as we cannot but suppose, are to be placed in opposition to the unanswerable body of evidence alluded to above. On the other hand what are the labourers to do? Experience has proved to them that there is no danger more directly threatening the very means of their existence, than giving evidence of the facts as they exist.

The minds of the Masters must have undergone a complete revolution if any such attempt on the part of the labourers will not only cause the loss of their employment but also the posting of their names in the entrance Hall of every Mill far and near for the purpose of insuring their exclusion from any such employment in any other place".⁽¹⁾

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1. J.N. Cowell - E.C., 3 May 1833. The itinerant Commissioners were instructed to take examinations on oath, and to safeguard working class witnesses ("First Report", pp.3 - 6)

Who composed the "Central Committee of Operatives for the Whole of Lancashire", wondered Cowell. "All we know is that it does, at present, controul and govern the general conduct of the operatives, considered as a body, in these parts". It was backed by the vast mass of the workers in its determination to carry Ashley's Bill by clamour and agitation: "the assembling delegates from so many places and from such distances the length of their deliberations and the resolutions which they adopted can leave little doubt on that head". The workers showed "strong symptoms of insincerity", he observed, --- adding immediately, however, that they seemed "to be acting as they think honestly and sincerely upon the whole, and they certainly send us personally assurances of their confidence and goodwill".
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The cotton masters were less crude in their approach. Three days after receiving the deputation from the workers, Cowell was visited by the local garrison commander, Colonel Shaw, who told him that the Central Committee lived by agitation, and assured him, "as a result of his experience here and knowledge of the parties, that no Confidence whatever was to be placed in the assurances of the leaders of the operatives, and that he was satisfied that they would leave no means untried to Convert our Commission into a pretext and means of getting up agitation".⁽²⁾ The same day, when a procession of factory children marched to his office to present a petition, Cowell had discovered a previous engagement which prevented his seeing them.

Chadwick himself had remained in London, contenting himself with giving to each of the itinerant Commissioners a sheaf of printed notes and minute verbal instructions on the methods of examining witnesses. It is not surprising, in view of the quality of many of the local investigators and of the organised resistance from the Short Time Committees which they encountered, that when he came to consider what measures were

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1. J.N. Cowell - E.C., 6 May 1833.
2. J.N. Cowell - E.C., 6 May 1833.

to be recommended he found that the evidence collected from the manufacturing districts was gravely defective, being either insufficient or inapplicable to the points in question. Little more than six weeks had been allowed to complete the inquiry and report, and impatient notes from Lord Melbourne were reaching the Commissioners.⁽¹⁾ But though time was so pressing, Chadwick felt bound to urge that the central board should examine some witnesses themselves. In the circumstances he felt it was fortunate that a number of the chief manufacturers happened to be in London, and available for personal questioning. It was, he declared later, only the unavoidable necessity of redeeming the Government's pledge that they would produce a plan before the end of the session, and of suggesting an alternative to the "ruinous measure" then before the House, which induced him to recommend the application of remedies to a state of things which he had not himself investigated in person. As it was, he felt that the most formidable objections to the recommendations were that they had been devised by persons who might never have seen a factory, and that the details had not been suggested by the inquiries of the itinerant Commissioners.⁽²⁾

The First Report of the Commission occupied only seventy pages⁽³⁾, but with its accompanying mass of district reports it formed the largest blue book that had appeared up to that date, and it came in for some ridicule as the "parallelopipon Report".⁽⁴⁾

Mill-owners could not have read it with any great satisfaction. True, the Ten Hours men were castigated, their leaders condemned as agitators, the processions and "studied

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1. J.M. Phillips - T. Tooke, 5 June and 20 June 1833.
2. E.C. - N. Senior, 30 July 1834.
3. 1833 (450), xx. 1, dated 25 June 1833. A Second Report, dated 15 July 1833, dealt with the medical evidence relating to adult operatives; and a Third Report, 25 March 1834, summarised the answers to the queries circulated amongst the manufacturers (1833 (519), xxi.1; 1834 (167) xix. 253, xx. 1.)
4. E.C. - Sir James Graham, 2 April 1844.

compositions" of child petitioners derided.⁽¹⁾ It was shown that some manufacturers had voluntarily incurred great expenditure for the health, education, and moral improvement of their workers, and with scarcely an exception the attitude to workers in the large new factories which had recently been built was found to be paternal, and the treatment of children "considerate, gentle, and beneficial".⁽²⁾ On the other hand, the Report stated bluntly that "the words "impracticable" and "impossible" are too commonly attached by many of the manufacturers to any regulation which may subject them to expence or to temporary inconvenience".⁽³⁾ Regulation there must be. The case for government intervention to protect the factory children was overwhelming. Whether employed in the largest and best regulated factories or in the smaller, obscure mills where the old cruelties still lingered, whether the work was light or heavy, whether their treatment was considerate or harsh, the children testified uniformly to the extremity of fatigue induced by the over-long hours. In the last hour of a winter evening it was almost impossible to keep the piecers awake; and when the machinery had stopped they would continue to go through the motions of piecing after falling asleep, and could hardly be shaken into sense enough to wash themselves or even to eat. Combined with this drowsiness the constant standing, the peculiar attitudes of the body and motions of the limbs, the high temperature and impure atmosphere, produced pains in limbs, back, loins, and side, and swelling of the legs, feet and ankles --- sometimes terminating in permanent and incurable disease.⁽⁴⁾

Now it was on this very point that the Ten Hours Bill was most deficient. "Its professed object is the protection of children; but it does not protect children. For the same

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1. "First Report from Factory Commissioners", p. 45.
2. *ibid.*, p. 21.
3. *ibid.*, p. 61.
4. *ibid.*, pp 25 - 31.

evidence which shows that the legislative protection of children is necessary shows that the restriction of the labour of children to ten hours a day is not an adequate protection".⁽¹⁾ Furthermore, by extending the age of protection to eighteen the Bill reached beyond its avowed purpose, tending towards "the pernicious notion of the propriety and necessity of legislative interference to restrict the hours of adult labour".⁽²⁾ For this the Commission could find no justification whatsoever. The common impression was that hours of daily labour were increasing in number; in fact, where they had once averaged 13, they were now only 12, or even 11½. Moreover, though ~~particular~~ ^{particular} classes of workers might have suffered, the wages of the majority had slowly increased and the severity of their labour diminished. The Commissioners concluded that the hours of adult workers, and the general improvement of their economic condition, could safely be left to the unfettered working of the industrial system, to "self acting causes", "chiefly the improvement of processes and circumstances affecting the interests of the manufacturers".⁽³⁾ Leading cotton masters were agreed that a twelve hour day was essential to remunerate the capitalist for his outlay on mills and machinery, and to enable him to meet the competition of China and Bengal, where hours were unlimited and child labour could be obtained for a penny a day. To fix hours below this level would mean giving a premium to the foreign competitor; it would lessen in proportion the volume of production, and so diminish the fund whence both wages and profits were paid.

Having thus demonstrated to their own satisfaction that a twelve hour day was to the benefit of the worker as much as the employer, the Commissioners turned to indicate their specific proposals for protecting the factory children. "We found", wrote Chadwick later, "that there was no definite

1. *ibid.*, p. 33.
3. *ibid.*, p.

2. *ibid.*, p. 50.

principle of legislature on the subject, and we furnished one, which appears on a review to be sound and as new and applicable to the present time (c. 1844) as then; namely that the legislature was justified in interfering for the protection of those who could not protect themselves, of those who had not arrived at the age of discretion to make their own bargains. On enquiring at what age young persons engaged themselves in the manufactures without the assent of parents or guardians being thought necessary, we found it to be about the age of puberty. We upon this evidence fixed the age of legislative interference at thirteen years of age. Beyond this we found that the facts negatived any allegations of the severity of adult labour in Cotton or other Mills; as compared with other branches of employment we said it was lighter".⁽¹⁾ It was recommended, therefore, that no child under the age of nine should be employed in the textile factories; after that age, it was asserted, serious and permanent disease was rarely produced, if the labour was not immoderate. From nine to fourteen children should work not more than eight hours a day. At fourteen legislative protection should cease. At that age children entered the stage of puberty, when they were more capable of enduring protracted labour; they ceased to be treated as children, corporal punishment became rare, and in other respects they became free agents, being allowed to retain part of their wages, to pay their board, and to make their own contracts.⁽²⁾

The Commission thus recommended for children under fourteen a working day two hours shorter than that laid down in Ashley's Bill. That is all that can be said for this proposal with its unreal picture of fourteen year olds bargaining as equals with their employers, and entering voluntarily upon the full day's work of an adult.

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1. "On the Employment of Children in Factories etc. Senior's Objection to Combated", MS, n.d.; probably notes of a speech to the Political Economy Club, c. 1844.
2. "First Report from Factory Commissioners", pp. 52 - 57.

In a further respect the Report showed a wider vision than Ashley's Bill. The most important part of the scheme, in Chadwick's view, was the recommendation that three or four hours a day should be devoted to education, the children being obliged to present a ticket on entering the factory to certify that they had passed the prescribed time in school. For this purpose, it was suggested, a relay system might be worked, children employed in the morning attending school in the afternoon, and vice versa.⁽¹⁾ This was Chadwick's first pronouncement in favour of the "Half-time System" --- "the greatest discovery of Modern Days", as Shaftesbury called it⁽²⁾ --- which in later life, in numerous pamphlets and speeches, he was to advocate as the key to all sound educational progress.⁽³⁾

It was in the machinery for enforcement, however, that the Report marked the greatest advance and left the deepest impression on subsequent factory legislation. Earlier Acts had put their trust in the informer and in supervision by visiting committees of magistrates and clergymen. But experience had shown that the rewards held out to the informer could not counterbalance the threat of dismissal and blacklisting wielded by the employer; while the justices and clergymen had avoided any possible unpleasantness with friends and the relatives of friends by the simple expedient of not entering the factories to see if the regulations were being carried out. The proposals

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1. *ibid.*, pp. 71 - 72. Ashley stated, however, that provisions for education and inspection had been omitted from his Bill merely out of the desire not to give additional offence to employers (*Hansard*, vol. 19, p. 224, 5 July 1833).
2. Shaftesbury - E.C., 17 September 1866.
3. See, for example: "Two papers submitted to Commission by Mr. Chadwick, as to half-time teaching and military and naval drill, and on time and cost of popular education on large and small scale", *Commons Return*, 1862, xliii.1; "Further return, being letter to Mr. Senior, explanatory of former paper", *ibid.*, 91; "National Education. On the rise and progress of the half-time principle for mixed physical and mental training, as the foundation of a national system of education", pamphlet, Knight & Co., 1881.

of the leaders of the factory agitation were hardly less deficient. "Ten hours and a day and a time-book" was Oastler's programme; and to enforce it on evasive employers, "flogging and the pillory". Ashley, following Sadler, also put his trust in the informer and the time-book, hoping to deter offenders by imposing heavier fines.

To Chadwick it appeared quite clearly a case for the interposition of the impartial power of the central government, to enforce the law against local and sectional interests. "Any measures by which the enforcement of the law shall be made chiefly dependent on those who have an interest in breaking it", observed the Report, "may be expected to prove as inefficient as the provisions of the existing law".⁽¹⁾ It was necessary to appoint some special agency since the proposals related solely to children, and were not directly conducive to the immediate interests of masters or operatives, or of any other powerful class. The Commissioners therefore recommended that the Government should appoint three inspectors, charged with the enforcement of the law, to go circuits of the chief manufacturing districts. They should have the right to enter all factories where children were employed, and there to order machinery to be fenced off, and to direct arrangements of a sanitary nature, "compatible with the execution of the manufacturing processes". The arrangements for the education of the children should also fall within their cognizance.⁽²⁾ This was the proposal which marked the "turning point in factory legislation",⁽³⁾ which rescued it from the futility of earlier Acts, and converted it from a gesture of woolly benevolence to a practical instrument of human welfare.

Parliament, shamed into action by the revelations of Sadler's Committee but facing uneasily the prospect of

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1. "First Report from Factory Commissioners", p. 64.
2. *ibid.*, p. 63.
3. Hutchins and Harrison, "History of Factory Legislation", p. 40.

legislating for industry, was relieved to find that it was possible to give factory children a larger measure of protection than the Ten Hours men had demanded without coming between the employer and his adult workers. The demands of humanity and business, it seemed, had been neatly reconciled. The Act of 1833, therefore, followed closely the main recommendations of the Report. The employment of children under nine years of age was prohibited, and an eight hour day established for children under fourteen; children were required to attend school for not less than two hours a day; and four inspectors were appointed to supervise the execution of the law. But in one respect the Act went beyond Chadwick's proposals, and in another it fell far below them. It provided that no person under eighteen should be employed for more than twelve hours a day, or 69 hours a week. When nature had indicated so conveniently the exact age when a child became a man, Chadwick was disgusted that "the pernicious practice of legislating for the protection of adults was in fact retained".⁽¹⁾ But a more serious defect, in Chadwick's view, was the weakness of the educational provisions. The Government Bill, as it left the Commons, had contained a clause, drafted by Chadwick, which provided that wherever it appeared to the inspector that a new or additional school was necessary to enable the children in any factory to obtain the education required by the Act, he was authorised to establish such a school by contract or otherwise; if the deduction of one penny in the shilling from the children's wages, already earmarked for educational purposes, were insufficient, the employer should pay the deficiency, the amount being set off against the poor rates due in respect of his factory; and if the cost exceeded the amount of his poor rate assessment, he should be reimbursed by the Poor Law overseers.⁽²⁾ In the Lords, however, this clause, as Chadwick lamented, was "given up to an obscure

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1. "On the Employment of Children in Factories etc. Senior's Objections to Combated", MS, n.d.
2. Parliamentary Papers, ~~ix~~ 1833, ii. 281.

opposition"⁽¹⁾, led by the Marquis of Salisbury. The inspectors were left with the authority to establish schools, but apart from the children's levy of a penny in the shilling, were given no power to raise the necessary money. The Lords also deleted the power given to the inspectors to dismiss any teacher whom they deemed incompetent or in any way unfit for the performance of his duties. It is impossible not to feel sympathy for Chadwick's complaint to Lord John Russell a few years later: "Had the Education Clauses which were carried in the Commons comprehending powers to establish Schools and pay for them from the Poor Rates where there were no schools already established and giving the control of the Education in those Schools as to its sufficiency and the competency of its Masters --- been carried in the House of Lords a large instalment of a national System of Education much larger than any in measures which have of late been made the subject of contest would have been carried".⁽²⁾ The obligation imposed upon the employers was in fact, not to ensure the education of their juvenile workers, but merely to see that they presented a "schoolmaster's ticket or voucher" certifying that they had attended school for at least two hours on each of six days of the preceding week. To satisfy the requirements of the law class rooms were established in coal-holes and engine-rooms, and the children entrusted to "the engine man, the slubber, the burler, the overlooker, the wife of any one of these, the small shopkeeper, or the next door neighbour, with six or seven small children on the floor and on her lap".⁽³⁾ Some employers found even this too much trouble, and ten years later Chadwick was noting that "instead of giving the reduced hours of labour to efficient schools the reduction has in fact turned the children in many places out into the streets; and swollen the ranks of juvenile

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1. "On the Employment of Children in Factories etc
2. E.C. - Lord John Russell, 1 August 1840.
3. "Reports from the Factory Inspectors on the Educational Provisions of the Factories Act", 1839, xlii. 411.

delinquents". (1)

The Short-Time Committees, who had been blind to the defects of Sadler's Bill, were at first equally blind to the virtues of the Factory Act. It was assumed that the inspectors would be no more than watch-dogs of the millowners' interests. The Rev. G.S. Bull declared that "if these inspectors, in whose appointment the mill owners will have due influence, should take the sides of their patrons and masters, so arbitrary are their powers that we shall want nothing but the torture room to complete their character and office as factory inquisitors". (2) The suspicion of the workers was only equalled by the alarm of the capitalists, who had hoped to keep the appointments in the locality and so under their influence. But three years later the Rev. G.S. Bull was urging the workers "to hold fast, as for life itself, to the eight-hour clause, the education clause, and the inspection clause of the present Act". (3) A more grudging recognition of the value of the inspectors' work came from the employers. "Impartial manufacturers have admitted in respect to the appointment of the Government Inspectors, that it has been beneficial in its action, independently of the operation of the law of which the execution is to a greater or less extent insured by them. It has been beneficial in keeping attention to the fact, that beyond the mere interests of the employers and the employed, in the bargains of the hour and the day between them, there are social and public interests to be regarded. It has been beneficial in promoting voluntary improvements of a public character by capitalists. At the period of our first inquiry there were very few model manufacturers. Now there are numerous establishments by which the first models are surpassed, and evidence is afforded of a very important future for the working classes". (4)

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1. "On the Employment of Children in Factories etc."
2. "Leeds Intelligencer", 28 September 1833.
3. "Manchester and Salford Advertiser", 13 February 1836.
4. "Mem. on factory inspectors", MS, n.d.

The Factory Act of 1833 represents Chadwick's first success in grafting the Benthamite principle of inspectability on to the machinery of British administration. The example was immediately followed by the appointment of inspectors to supervise the education grants. Over one field after another as the century wore on the controlling hand of the Government Inspector was stretched, to check the administration of Poor Law Guardians, to discipline the capitalist in his mines and factories, and to confront in the towns the interests of builders and landlords. And more often than not Chadwick's hand may be detected at work behind each extension of the Inspector's power.

Nobody grasped the implications of the recommendation in the last two pages of the Factory Report, if, indeed, they ever read that far. Here, while his colleagues were preoccupied with the evidence on the relay and education clauses and the Ten Hours Bill, Chadwick had slipped in his doctrine of "pecuniary responsibility", the germ from which were to spring the Employers' Liability and Workmen's Compensation Acts. Since later historians have also universally ignored the passage, it is worth giving in some detail.⁽¹⁾

Chadwick began by sweeping away the flimsy arguments by which the employer usually shuffled off responsibility for accidents on to the shoulders of his workpeople. It was frequently asserted that accidents were due to culpable heedlessness or temerity, and this was made an excuse for refusing to contribute to the expense of the cure. The argument was certainly not valid against children of an age when caution and discretion did not exist; nor was it likely that an adult worker, except in a state of delirium, would wantonly incur the risk of losing life or limb. Excluding cases of

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1. Of the Report of the Select Committee on Railway Labourers, thirteen years after the Factory Commission, L.C. Knowles remarks, for example, "it is interesting to see the doctrine of Workmen's Compensation set out so early". ("Industrial and Commercial Revolutions", p. 267).

culpable temerity, the question was who should bear the pecuniary responsibility.

"We conceive", ran Chadwick's answer, "that it may be stated as a principle of jurisprudence applicable to the case of evils arising from causes which ordinary prudence cannot avert that responsibility should be concentrated, or as closely as possible apportioned on those who have the best means of preventing the mischief. Unless we are to impose on the workman the obligation of perpetual care and apprehension of danger, the nature of the injuries inflicted are of themselves evidence that all the care which can be taken by individuals attending to their work is taken by them; it is only the proprietor of the machinery who has the most effectual means of guarding against the dangers attendant upon its use.

If such an extent of pecuniary responsibility for the accidents which are incidental to the use of the machines is imposed upon him, those consequences will be more likely to be taken into account, and to be guarded against at the time of the erection of the machinery. The workmen are not prone to regard immediate dangers, still less dangers which are remote and contingent, and many of the accidents are of a nature apparently too uncertain to form data for insurance. It could hardly be expected that a workman in entering a manufactory should object that any portion of the machinery is dangerous, and that it ought to be boxed off. But the proprietor of the machine is necessarily the person who can best foresee all the consequences incidental to its use, and can best guard against them. By throwing upon him a portion of the pecuniary responsibility for those mischiefs, we combine interest with duty, and add to the efficiency of both.

If the pecuniary consequences from unavoidable accidents were considerable, the imposition of the proposed responsibility may be met by the master, or by a deduction from the wages. Considering the defective nature of most existing modes of provision against sickness and casualties by benefit or friendly

societies, and also unhappily the large proportion of those who from improvidence do not take advantage of these or other means (of which some portion of the working class avail themselves in so exemplary and admirable a manner), if we were to devise a form of insurance against the casualties in question, available to all classes, we should recommend that measures should be taken to secure from the master the regular deductions of the amount of the contribution of the persons employed.

We propose that in the case of all accidents whatsoever from machinery occurring to children under fourteen years of age, the proprietor of the machinery shall pay for the medical attendance on the child, and all the expenses of the cure, until medical attendance is no longer required; and also during the same period shall continue to pay wages at the rate of half the wages employed by the individual in question at the time of the occurrence of the accident.

We are of opinion that persons above that age, in all cases where the injury was received from accidents in the ordinary course of business, where there was no culpable temerity, should receive similar treatment at the expense of the employer, and should also be allowed half wages until the period of cure, as we believe that an allowance of full wages would occasion considerable fraud in the protraction of that period, especially in the cases of accidents of a less serious nature".
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In the hurry with which the Report was drafted, these paragraphs eluded the attention of Chadwick's colleagues, and Tooke was dumbfounded and not a little flustered when a witness before the Mines Commission of 1841 gave a dissertation on the principle as the best way to prevent accidents --- and in support of the idea cited the report which bore Tooke's name. He wrote at once to remonstrate with Chadwick as the fountain head of the heresy. "Our confidence in the general coincidence of your views with ours, led us wholly to overlook the tenour and tendency of the passage in question, and that we should so
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1. "First Report from Factory Commissioners", pp. 73 - 74.

have overlooked it, is the less to be wondered at, seeing that when published it equally passed without notice either by parliament or by the public. Indeed I never hear a single person notice the doctrine, much less expound it".⁽¹⁾ If the passage had been brought to his attention, he added, he felt certain that he would have detected at once the unsoundness of the doctrine, applied as it was to adults as well as children.

The frowns of the orthodox economists, however, never discouraged Chadwick. The idea found a mention in the "Sanitary Report", and was the principal remedy he proposed for the condition of the railway labourers in 1846.⁽²⁾ And he never missed a chance to canvass it at the Statistical Society or the Political Economy Club, and to indoctrinate with it the Assistant Poor Law Commissioners and Superintending Inspectors who came under his command.⁽³⁾ It was not the least of his many unremembered contributions towards the civilising of modern industrial society.

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1. T. Tooke - E.C., 15 November 1841. He wrote again on 17 November: "I am sorry to observe by the P.S. to your note that you have reason to believe that Lord Ashley will take up the subject. If he does he will make nothing of it and by his failure in it, as fail he must, he will impair the influence which he would justly possess if he were to confine himself to the means of bettering the condition and shortening the hours and promoting the education of children"
2. See above, p. 265.
3. For an example, see above, p. 46.

BIBLIOGRAPHY.

A. MANUSCRIPT SOURCES.

(1) THE CHADWICK MANUSCRIPTS.

Chadwick kept copies or rough drafts of most of his papers, and these are now deposited in the library of University College, London. Besides letters, memoranda, and drafts of speeches, the collection includes most of his pamphlets, and proof sheets of many of the articles he contributed to newspapers and various sanitary and administrative journals.

The papers contain very little material bearing on his early career; there is practically nothing, for example, about his relations with Bentham. From the period of the Factory Commission onwards, however, the serious gaps are few, and the material relating to the sanitary movement and the General Board of Health is particularly full and valuable. No previous studies of Chadwick's career have made use of these manuscripts.

The papers have not yet (August 1948) been calendared. Some of them have been roughly bundled according to date and subject.

Unless otherwise indicated, all letters and papers quoted in this thesis are from the collection at University College.

(2) AT THE PUBLIC RECORD OFFICE.

The Ministry of Health papers deposited at the P.R.O. contain:

- (a) Minute Books of the Poor Law Commission (M.H.1).
35 volumes: from August 1834 to July 1842.
- Rough Minute Books (M.H.2).
37 volumes: from August 1834 to June 1847.

Appendices to Minutes (M.H.3).

3 volumes: from 1835 to 1846.

Extracts from Minutes (M.H.4).

2 volumes: from July 1839 to December 1841.

- (b) Minutes of proceedings of the Commissioners for Inquiring into the state of large Towns (M.H.7).
1 volume: 1843 - 45.
- (c) Minute Books of the General Board of Health (M.H.5).
12 volumes: from 22 November 1848 to 21 February 1856.
Rough Minute Books (M.H.6).
20 volumes: from 26 September 1848 to 3 March 1858.

The Minutes of the Poor Law Commission were used by the Webbs. For the defects of these Minutes, see Chadwick's comments in his evidence to the Select Committee on District Asylums (P.P. 1846 (388) vii, pp. 86 - 88, 364 - 375). There seems to be room for a re-examination of these records, with the assistance of the material in the Chadwick MSS, which brings out and illustrates the issues underlying the colourless entries in the Minute Books.

(3) AT COUNTY HALL, WESTMINSTER.

The Record Room at County Hall (Room B.21) holds all the minutes and other papers of the several district Commissions of Sewers, and of the Metropolitan Commission which replaced them in December 1847. The following were found particularly useful:

- (a) "Metropolitan Commission of Sewers. Orders of Court" (i.e. minutes).
Vol. 1. 6 December 1847 to 4 January 1849.
Printed.
Vol. 2. 10 January 1849 to 4 October 1849.
MS.
31 volumes altogether, to 31 December 1855.
- (b) "M.C.S. Minutes of the General Purposes Committee".
Vols 1 - 5, from 9 December 1847 to 18 December 1849.
29 volumes altogether, to 27 November 1855.

- (c) The correspondence, petitions, MS reports, etc., relating to (a) and (b) are to be found in:
 "Original Papers. Court and General Purposes Committee".
 Vols. 1 - 5, from December 1847 to 4 January 1849.
 The series then continues as "M.C.S. Court Papers", vols. 6 - 67, from 10 January 1849 to 31 December 1855.

(d) Proceedings of Committees:

"M.C.S. Trial Works Committee. Minutes and Report Book".

1 volume: from 6 March 1849 to 8 October 1849.

"M.C.S. Works Committee. Trials Works Committee. Sewage Manure Committee. Original Papers".

2 volumes: from 22 January 1849 to 8 October 1849.

"Metropolitan Sewers. Works Committee". Minutes.

1 volume: from 22 January 1849 to 4 June 1849.

"Ordnance Survey Committee. Minute and Report Book".

1 volume: from 21 March 1849 to 1 August 1849.

"Metropolitan Sewers. Finance Committee". Minutes.

1 volume: from 29 January 1849 to 9 October 1849.

"Minute and Report Book. Bye-Laws Committee".

1 volume: from 9 February 1849 to 2 October 1849.

"M.C.S. General Committee. Special Committee Tooting. Bye-Laws Committee. Sewage Manure Committee. Ordnance Survey Committee. Original Papers".

1 volume: from January 1849 to July 1849.

"Metropolitan Sewers. Sub-Committee on Disposal of Refuse, 13 February to 8 March 1849. Sewage Manure Committee, 19 March to 8 October 1849".

1 volume.

- (e) Printed papers, reports of surveyors, etc., are contained in:

"Metropolitan Commission of Sewers. Papers ordered to be printed. 1848 - 49".

1 volume.

"M.C.S. Reports, etc. 1849".

2 volumes.

(4) MISCELLANEOUS.

There are a few letters in the Bentham Manuscripts at University College, London, and in the following collections at

the British Museum:

Correspondence and papers of the family of Bentham (1).
 Letters to Francis Place (2).
 Macvey Napier Papers (10).
 Correspondence of C. Babbage (4).
 Liverpool Papers (1).
 Original Letters to Charles Griffin (2).
 Non-scientific Correspondence of Sir Richard Owen (3).
 Miscellaneous Papers (1).

Many of these are duplicated in the Chadwick Manuscripts.

B. A SELECTION OF THE MORE IMPORTANT PAMPHLETS,
 ARTICLES, AND SPEECHES BY EDWIN CHADWICK.

The following list should be regarded as representative rather than exhaustive, though it probably contains the most valuable of Chadwick's writings. Many others are to be found in the transactions of such bodies as the British Association, the Association for the Promotion of Social Science, the Statistical Society, the Society of Arts, and the Sanitary Institute of Great Britain.

"Life Assurances".

"Westminster Review", vol. ix, No. xviii, pp. 384 - 421, February 1828. Reprinted, with additional notes; Charles Knight, London, 1836.

"Preventive Police".

"London Review", vol. i, No. 1, pp. 252 - 308, 1830.

"Centralization. Public Charities in France".

"London Review", vol. i, No. 2, pp. 536 - 565, 1830.

"Real Incendiaries and Promoters of Crime".

"Examiner", 20 February 1831, pp. 114 - 116.

"Taxes on Knowledge".

"Westminster Review", vol. xv, No. xxix, pp. 238 - 267, July 1831.

"On the Principles and Progress of the Poor Law Amendment Act".

"Edinburgh Review", vol. lxxiii, pp. 487 - 537, July 1836. Reprinted 1837.

"On the best modes of representing accurately, by statistical returns, the duration of life, and the pressure and progress of the causes of mortality amongst different classes of the

community, and amongst the populations of different districts and countries".

"Journal of Statistical Society", vol. vii, pp. 1 - 40, April 1844.

"Papers (by John Roberton, Robert Rawlinson and Edwin Chadwick) read before the Statistical Society of Manchester on the demoralisation and injuries occasioned by the want of proper regulations of labourers engaged in the construction and working of railways, etc."

Ed. E.C. Charles, Knight, London, 1846.

"Health of Towns. Report of the speeches of Edwin Chadwick, Esq., Dr. Southwood Smith and others at a meeting to promote a subscription in behalf of the widow and children of Dr. J.R. Lynch".

Chapman, Elcoate and Co., London, 1847.

"Sewer Manure".

Report to Metropolitan Sewers Commission. 1849.

"A Letter to the Right Hon. Viscount Palmerston, etc., on the improvement of the sanitary condition of the army at home and in the field".

Eyre and Spottiswoode, 1855.

"On improvements in machinery and in manufacturing processes, as affecting the condition of the labourer".

Address to Philanthropic Congress at Brussels.

"Journal of Society of Arts", vol. iv, pp. 803 - 807, 14 November 1856.

"Address to the electors of Southampton?"
1857.

"The Economical, Social, Educational, and Political Importance of Open Competitive Examinations for admission to the public service".

To British Association, 1857.

"Journal of Statistical Society", vol. xxi, pp. 18 - 51, 1858.

"On the application of sanitary science to the protection of the Indian Army".

"Transactions of National Association for the Promotion of Social Science", 1858, pp. 487 - 504.

"The progress of the principle of competitive examination for admission into the public service".

To British Association, 1858.

"Journal of Statistical Society", vol. xxii, pp. 44 - 75, 1859.

"Results of different principles of legislation and administration in Europe; of competition for the field, as compared with competition within the field of service".

"Journal of Statistical Society", vol. xxii, pp. 381 - 420, 1859.

"The chief methods of preparation for legislation especially as applicable to the reform of Parliament".

To Society for Promoting the Amendment of the Law.
Charles Knight, 1859. Re-published in "Fraser's Magazine", vol. 75, pp. 673 - 690, May 1867.

"On the Physiological as well as Psychological Limits to mental labour".

"Transactions of British Association", 1860.

"Public Health".

"Transactions of Social Science Association", 1860, pp. 574 - 606.

"Post Office Savings Banks".

"Journal of Statistical Society", vol. xxiv, pp. 519 - 522, 1861.

"The subject matters and methods of competitive examinations for the public service".

To British Association, 1862.

"Journal of Statistical Society", vol. xxvi, pp. 72 - 77, 1863.

"The comparative results of the chief principles of the Poor Law administration in England and Ireland, as compared with that of Scotland".

"Transactions of Social Science Association", 1863, pp. 712 - 725.

"The present state of economy and trade".

"Transactions of Social Science Association", 1864, pp. 69 - 105.

"The loss of life and property by shipwrecks".

"Transactions of Social Science Association", 1865, pp. 77 - 101.

"The Economical Principles of a reform of the legislation and administration for the conveyance of passengers and goods on railways".

Longmans, Green and Co., 1865.

"The Government Purchase of Railways".

"Journal of Society of Arts", vol. xiv, pp. 198 - 207, 9 February 1866.

"What action, if any, ought the Government to take with regard to railways?".

"Transactions of Social Science Association", 1867, pp. 593 - 605.

"University of London Election; Address to members of Convocation. With a letter from J.S. Mill".
1867.

"On Standing Armies".

London, 1868.

"National Elementary Education. An Address".
1868.

"Les Unions Ouvrières en Angleterre au point de vue criminelle".
Paris, 1868.

"The election for the Kilmarnock Burghs. Statement in relation thereto".
1868.

"Movement for International Economy of Military Expenditure".
"Journal of Statistical Society", vol. xxxii, pp. 456 - 458, 1869.

"The Military and Naval Force derivable from the introduction of military drill, and gymnastic exercises, as part of a national system of education in all elementary schools".
Royal United Service Institution, May 1870.

"National Education. Letter thereon to the Lord President of the Council".
London, 1870.

"The sanitary and economical advantages of smooth and impermeable street surfaces".
"Transactions of Social Science Association", 1871, pp. 489 - 501.

"The chief economical principles for consideration in relation to National as against Standing Armies, as displayed in the present war on the continent".
"Transactions of Social Science Association", 1870, pp. 500 - 516.

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1871.

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Academie des Sciences Morales et Politiques.
Orleans, 17 November 1871.

"On the jurisprudence of chargeability for sanitary works and for poor rates, police rates, and other branches of local administration".
London, 1873.

"What are the best means of drawing together the interests of the United Kingdom, of India, and of the Colonies?"
"Transactions of Social Science Association", 1874, pp. 850 - 869.

"The system of the water supply of the metropolis".
"Sanitary Record", vol. iv, pp. 243 - 248, 8 April 1876.

"Address on Public Health".
"Transactions of Social Science Association", 1877, pp. 74 - 121. Reprinted, Spottiswoode and Co., London, 1877.

"Sanitary Condition of Aberdeen".

"Transactions of Social Science Association", 1877, pp. 582 - 591.

"The sanitation of a county".

"Sanitary Record", vol. viii, pp. 257 - 262, 26 April 1878.

"National water supply".

"Journal of Society of Arts", vol. xxvi, pp. 767 - 774, 5 July 1878.

"The need of reforms in the administrative organisation of the sanitary service, with special reference to the appointment of Medical Officers of Health".

To Sanitary Institute of Great Britain, 1878.

"Sanitary Register", October 1878, pp. 5 - 19.

"The Requisite Attributions of a Minister of Health".

To International Congress of Hygiene, Paris, 4 August 1878.

"Sanitarian", vol. vii, pp. 59 - 67, February 1879.

"Address as President to International Association for the Promotion of Means for Improving the Supplies of Drinking Water to Populations".

Delivered at Amsterdam, September 1879.

G. Norman and Son, London, 1879.

"On the Norma of sanitation in the school stages of life".

"Transactions of Sanitary Institute", vol. i, pp. 271 - 279, 1879.

"Letter from Mr. Edwin Chadwick, on the application of sanitary science to the reduction of infantile mortality among the wage classes in Croydon".

"Transactions of Sanitary Institute", vol. i, pp. 310 - 314, 1879.

"Circulation or stagnation: being the translation of a paper by F.O. Ward on the arterial and venous system for the sanitation of towns, with a statement of the progress made since then for its completion by Edwin Chadwick, G.B.".

"Transactions of Sanitary Institute", vol. ii, pp. 259 - 287, 1880.

"The Census of 1881".

"Journal of Society of Arts", vol. xxviii, pp. 717 - 723, 16 July 1880.

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"Transactions of Social Science Association", 1881.

"The Prevention of Epidemics".

To Brighton Health Congress, December 1882.

"Sanitary Record", New Series vol. 3, pp. 270 - 277,
15 January 1882.

"Position of Sanitation in England".

To Association of Public Sanitary Inspectors, June 1884.

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"On the evils of disunity in central and local administration, especially with relation to the metropolis, and also on the new centralisation for the people, together with improvements in codification and in legislative procedure".

Longmans, London, 1885.

"Commentaries on the report of the Royal Commission on Metropolitan Sewage Discharge, and on the combined and the separate systems of town drainage".

Longmans, London, 1885.

"Sanitary review of the session".

To Association of Public Sanitary Inspectors, May 1885.

"Sanitary Engineering", vol. x, pp. 296 - 298, 8 May 1885.

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"Sanitarian", vol. xv, pp. 11 - 15, July 1885.

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To Sanitary Institute of Great Britain, 1887.

"Transactions", vol. ix, pp. 343 - 348.

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To Association of Public Sanitary Inspectors, 1888.

"Journal of Society of Arts", vol. xxvi, pp. 1029 - 34,
7 September 1888.

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Cassell and Co., London, 1889.

"Present Condition of Sanitary Science".

To Association of Public Sanitary Inspectors.

"Sanitarian", vol. xii, pp. 385 - 395, May 1889.

"Competitive examination".

London, 1890.

C. OFFICIAL REPORTS DRAFTED WHOLLY OR PARTLY BY CHADWICK.

"First Report from Commissioners appointed to collect information relative to employment of children in factories". 1833 (450), xx. 1.

Second Report. 1833 (519), xxi. 1.

Supplementary Reports. 1834 (167), xix. 253, xx. 1.

"Report from Commissioners for inquiring into the administration and practical operation of the Poor Laws". 1834 (44), xxvii. 1.

Appendix (A) Parts II, III, IV: Evidence collected by Edwin Chadwick; Rural Questions. 1834 (44), xxix. 1.

Chadwick's Report on London and Berkshire was reprinted in "Extracts from the information received by His Majesty's Commissioners, as to the administration and operation of the Poor Laws", London, 1833. (pp. 201 - 339)

"First Report of Commissioners appointed to inquire into the best means of establishing an efficient constabulary force in the counties of England and Wales". 1839 (169), xix. 1.

"Report of the Poor Law Commissioners to the Secretary of State, on an inquiry into the sanitary condition of the labouring population of Great Britain". 1842, xxvi. 1. (House of Lords).

District Reports. 1842, xxvii. 1. (House of Lords).

Report on Scotland. 1842, xxviii. 1. (House of Lords).

"Supplementary Report on the result of a special inquiry into the practice of interment in towns". 1843 (509), xii. 395.

"First Report of Commissioners for inquiring into the state of large towns and populous districts". 1844 (572), xvii. 1.

Second Report. 1845 (602) (610), xviii. 1. 299.

"First Report of Commissioners appointed to inquire whether any and what special means may be requisite for the improvement of the health of the metropolis". 1847 - 48 (888) (895), xxxii. 1. 57.

Second Report. 1847 - 48 (911), xxxii. 253.

Third Report. 1847 - 48 (979), xxxii. 339.

The Reports of the General Board of Health are included in Section E below.

Of the Annual Reports of the Poor Law Commission, Chadwick's influence is most visible in the First (1835), Fourth (1838), and Fifth (1839).

D. EVIDENCE GIVEN BY CHADWICK BEFORE ROYAL COMMISSIONS
AND PARLIAMENTARY COMMITTEES.

- Select Committee on Metropolitan Police. 1828 (533), vi. 1.
Chadwick was apparently not summoned as a witness; but
the paper at Appendix F, pp. 322 - 325, is probably his:
"Outline of the advantages which would result from
extending the circulation of the "Police Gazette";
apprehension of offenders; recovery of stolen property;
prevention of crime".
- Select Committee on intoxication among the labouring classes.
1834 (559), viii. 315.
11 June 1834, pp. 29 - 40.
- Select Committee on the Highways Act. 1837 - 38 (463), xxiii.
253.
5 March 1838, pp. 11 - 25; 7 March, pp. 34 - 46.
- Select Committee on District Asylums for the houseless poor in
the metropolis. 1846 (388), vii. 1.
27 February 1846, pp. 86 - 88; 5 May 1846, pp. 364 - 375.
- Select Committee on Local Acts. 1846 (556), xii. 1,
28 May 1846, pp. 21 - 41.
- Select Committee on Railway Labourers. 1846 (530), xiii. 411.
16 June 1846, pp. 146 - 154.
- Select Committee on Sewage Manure. 1846 (9474), x. 535.
26 June 1846, pp. 106 - 120.
- Select Committee on the administration of the Poor Law in the
Andover Union. 1846 (663 - I) (663 - II), v. Part I. 1, Part
II. 1.
25 July 1846, pp. 549 - 568; 28 July, pp. 869 - 892; 29
July, pp. 893 - 909; 30 July, pp. 912 - 926; 927 - 933;
934 - 936; 11 August, pp. 1106 - 7; 15 August, pp. 1274 -
1292; 1310 - 1311.
- Select Committee on the Law of Settlement. 1847 (82), xi. 1,
etc.
Fourth Report, 1847 (218), xi. 201. 4 March 1847, pp.
1 - 18; 9 March, pp. 18 - 40; 11 March, pp. 40 - 63;
16 March, pp. 64 - 95.
- Select Committee (Lords) to consider the subject of printing
papers for the House of Lords. 1854, xxi. 135 (House of Lords)
30 May 1854, pp. 25 - 30, 35 - 37.
- "Papers relating to re-organisation of Civil Service". 1854 -
55, xx. 1.
Chadwick's paper, 1 August 1854, pp. 136 - 227.
- Select Committee on operation of Corrupt Practices Prevention
Act, 1854. 1860, x. 1.
15 March 1860, pp. 153 - 167.

"Two papers submitted to Commission (on Popular Education) by Mr. Chadwick, as to half-time teaching and military and naval drill, and on time and cost of popular education on large and small scale". 1862, xliii. 1.

"Further return, being letter to Mr. Senior, explanatory of former paper", *ibid.*, 91.

Select Committee on Metropolitan Local Government. 1866, xiii. 171.

Second Report. 1866, xiii. 317. 23 July, pp. 223 - 31

Select Committee on employment of steam on tramways. 1877, xvi. 445.

22 March 1877, pp. 108 - 114.

E. PARLIAMENTARY AND DEPARTMENTAL PAPERS.

(1) 1831 - 1847: PUBLIC HEALTH, POOR LAW, FACTORY ACT, PRIVATE BILLS.

Select Committee on Bill to regulate the labour of children in mines and factories. 1831 - 32 (706), xv. 1.

"Instructions from the Central Board of Factory Commissioners to the District and Medical Commissioners". 1833 (274), xxxi. 349.

"Extracts from Reports made to the Poor Law Commissioners on the subject of the education of the poor". 1833. cccxiv. 657.
(House of Lords).

Reports from the Factory Inspectors on the effects of the educational provisions of the Factories Act. 1839 (42), xlii. 353.

Select Committee (Lords) on the supply of water to the metropolis. 1840, xxii. 715. (House of Lords).

Select Committee on health of towns. 1840 (384), xi. 277.

Select Committee on building regulations and the improvement of boroughs. 1842 (372), x. 161.

Select Committee on interments in towns. 1842 (327), x. 349.

"Letters from R.H. Greig and H. Ashworth to E. Chadwick; also, correspondence and return relative to the removal of labourers from agricultural districts to manufacturing districts".
1843 (254), xlv. 119.

Select Committee on medical relief to the sick poor. 1844 (312) ix. 1. Second Report: 1844 ~~312~~ (387), ix. 31.
Third Report: 1844 (531), ix. 93.

Resolutions relative to Private Bills. 1845 (11) (113) xxxvi.
1. 3.

"Instructions to Surveying Officers appointed by the Commissioners of Woods and Forests to institute preliminary inquiries, under 9 & 10 Vict. c. 106, in cases of application for Acts for the formation of cemeteries". 1847 (in 33), xxxiii. 87.

"Letters from the Poor Law Commissioners to the Secretary of State respecting the transaction of the business of the Commission". 1847 (148), xlix. 1.

(2) 1848 - 54: REPORTS, RETURNS, AND OTHER PAPERS RELATING TO THE GENERAL BOARD OF HEALTH.

(a) Administration of Public Health and Nuisances Acts.

"Report on the measures adopted for the execution of the Nuisances Removal and Diseases Prevention Act, and the Public Health Act, up to July 1849". 1849 (1115), xxiv. 1.

"Minutes of information collected in respect to the drainage of the lands forming the sites of towns, to road drainage, and the facilitation of the drainage of suburban lands". 1852 (1471), xix. 1.

"Minutes of information collected with reference to works for the removal of soil water, or drainage of dwelling-houses and public edifices, and for the sewerage and cleansing of the sites of towns". 1852 (1535), xix. 307.

"Minutes of information collected on the practical application of sewer water and town manures to agricultural production". 1852 (1472), xix. 133.

"Copies of the correspondence between the General Board of Health and the Metropolitan Sanitary Association, on the subject of amendments in the Nuisances Removal Act". 1852, xvii. 285.
(House of Lords).

"Reports on an inquiry relative to prevalence of disease at Croydon, and to plan of sewerage". 1852 - 53, xcvi. 35.
Further Reports from Board of Health, *ibid.* 221.
Statement of preliminary inquiry, etc., *ibid.* 117

"Minutes of Evidence taken before the Select Committee of the House of Lords on the Bill "to confirm certain Provisional Orders of the General Board of Health for Hertford, Accrington, Bangor, and Uxbridge, etc". 1852 - 53, xxxi. 231. (House of Lords).

"Report on State of works of drainage and sewerage, etc., (at Croydon) by Thomas Wicksteed". 1854, lxi. 347.

"Copies of all correspondence, memorials and reports, in reference to the application of the Public Health Act to the township of Barton-upon-Irwell". 1854, lxi. 1.

"Report on administration of the Public Health Act, and Nuisances Removal and Diseases Prevention Acts, from 1848 to 1854". 1854, xxxv. 1.

Details of the receipt and expenditure of the Board, the persons in their employment, the number and names of places from which applications were made, the method of applying the Act, the amounts of the mortgages secured on local rates, the average cost of the works, etc., may be found in the following returns:

1850 (755), xxxiii. 335.
 1850 (110), xxxiii. 591.
 1851 (504), xliii. 321.
 1852 (573), liii. 1.
 1852 - 53, xcvi. 1.
 1854 - 55, liii. 19.
 1857 (Sess. 2), xli. 3.
 1867, lix. 141.

Orders in Council for the application of the Public Health Act were published in the "London Gazette" (see above, p. 528, foot-note); as were also the Notifications in respect to the Nuisances Removal and Diseases Prevention Act (p. 368, foot-note). Specimens of the Provisional Orders are given in P.P. 1850, xx. 321 (House of Lords): "Provisional Orders for the application of the Public Health Act to Stratford-upon-Avon, Dartford, Newport (Mon.), Brecon, Harrow, Derby, Dover, Chelsford, and York".

The collection of Chadwick's pamphlets in the British Museum contains some 140 of the local reports by the Inspectors of the General Board.

(b) Cholera, 1848 - 1849 and 1853 - 1854.

"Report to the Poor Law Commission on the capabilities of the Metropolitan Workhouses for the reception and treatment of cholera cases". 1847 - 48 (917), li. 431.

"Report of the General Board of Health on the epidemic cholera of 1848 and 1849". 1850 (1273), xxi. 3.

Appendix (A), *ibid.*, p. 185. Appendix (B), *ibid.*, p. 365

Appendix (C), 1852 (1523), xx. 1.

"Despatches and other documents relating to the outbreak of the cholera in the island of Jamaica". 1851 (104), xxxvi. 561.

"Memorandum addressed to Viscount Palmerston, Her Majesty's Secretary of State for the Home Department, on behalf of a deputation which waited on him, on 27th February 1854, for the purpose of urging the necessity of preparations against the apprehended return of the cholera". 1854, xix. 43. (House of Lords).

"Letter from Dr. H. Gavin, Medical Superintending Inspector General Board of Health, showing benefits resulting from house-to-house visitation in Newcastle, Dundee, and Glasgow". 1854, lxi. 109.

"Report of Commissioners on causes of outbreak of cholera in towns of Newcastle-upon-Tyne, Gateshead, and Tynemouth". 1854, xxxv. 131.

(c) Metropolitan Interments Act.

"Report on a general scheme for extra-mural sepulture". 1850 (1158), xxi. 573.

"Report to the General Board of Health, by Dr. Sutherland, on the practice of intramural interments in the metropolis". 1850, xxxix. Part I. p. 153. (House of Lords).

"Number of interments that have taken place in the churchyard and vaults of the church of St. Margaret's (Westminster), 1840 to 1849". 1850 (137), xxxiii. 369.

"Report "on the circumstances attending the revolting practices that have been said to occur in the St. Giles's cemetery in the parish of St. Pancras", by H. Austin and R. Rawlinson. 1850, xxxix. Part I. p. 1. (House of Lords).

"Report of preliminary proceedings under the Metropolitan Interment Act from 5th August to 31st December 1850". 1851 (479), xxiii. 429.

"Second Annual Report of the General Board of Health, under sec. 73 of the Metropolitan Interment Act". 1852 (264), xx. 97.

"Minutes of the Board of Health relating to the Metropolitan Interments Act since August 1850; and correspondence relative to the purchase of cemeteries, and the Abbey Wood Estate".
1852 (190), liii. 37.

Expenditure under the Act is shown in the following returns:

1851 (in 479), xxiii. 429.
1852 (283), liii. 227.
1852 (in 573), liii. 1.

(d) Metropolitan Water Supply Bill.

"Report by the General Board of Health on the supply of water to the metropolis". 1850 (1218), xxii. 1.

Appendix No. I, *ibid.*, p. 341; No. II, *ibid.*, p. 342;
No. III, *ibid.*, p. 669; No. IV, *ibid.*, p. 931.

"Extract Minute from the proceedings of the General Board of Health, 7 February 1850, respecting supply of water to the metropolis by proposed new companies". 1850 (1140), xxii. 965.

"Letter from the General Board of Health to the Secretary of State, dated 5th July 1850, transmitting a Minute of the Board with reference to the River Lea Trust Bill and the New River Company's Bill". 1850, xx. 351. (House of Lords).

"Report on the proposed gathering grounds for the supply of the metropolis from the soft water springs of the Surrey sands, by the Hon. William Napier". 1851 (1371), xxiii. 61.

"Report by Mr. Rammell, an Inspector of the Board of Health, on the soft water Springs in the Surrey sands, etc." 1851 (345),
xxiii. 137.

"Report of the Commissioners on the chemical quality of the supply of water to the metropolis". 1851 (421), xxiii. 401.

Select Committee on the Metropolitan Water Bill. 1851 (643), xv.
1.

Select Committee on the Metropolitan Water Supply Bill, and the Chelsea Waterworks Bill. 1852 (395), xii. 1.

Further minutes of evidence relative to the New River, East London Waterworks, and Lee River Trust Bills, and the Wandle Water and Sewage Bill. 1852 (395 - I), xii. 221.

Further minutes of evidence relative to the East London, Southwark and Vauxhall, Grand Junction, West Middlesex and London (Watford) Spring Water Companies' Bills.
1852 (527), xii. 561.

Select Committee of the House of Lords on the Metropolitan Water Supply. 1852, xxi. 339. (House of Lords).

"Return of gaugings, reports, and communications in relation to the sources of the soft-water springs in the Surrey or other sands for the supply of the metropolis, received by the General Board of Health since the presentation of their Report on the supply of water to the metropolis". 1852, xxxi. 515. (House of Lords).

(e) Relations with the Metropolitan Commission of Sewers.

"Statement transmitted by Mr. John Lesl  e, to the Secretary of State for the Home Department, complaining of the constitution and administration of the Commission of Westminster Sewers, etc." 1847 (686), lvii. 123.

"Letter from the Chairman of the Metropolitan Commission of Sewers to the Secretary of State, transmitting a report on the transactions of the Commissioners during the year 1850". 1851 (82), xlviii. 75.

"Reports of Mr. Bazalgette relating to Pipe and Tunnel Sewers". 1852 - 53, xcvi. 511.

Select Committee on Great London Drainage Bill. 1852 - 53, xxvi. 387.

"Reports and Communications by Board of Health to Home Secretary on the drainage of the metropolis". 1854, lxi. 113.

"Communication from General Board of Health, and reports of Superintending Inspectors in respect to operation of pipe sewers". 1854 - 55, xlv. 295.

"Reports of District Engineers on working of pipe sewers". 1854 - 55, liii. 173.

(f) Miscellaneous Activities.

"Letter, dated 19 March 1849, from the Board of Health to the Treasury, on the advantages of printing official reports in the octavo, instead of the folio form". 1849 (293), xlv. 21.

"Report of the General Board of Health on Quarantine". 1849 (1070), xxiv. 137.

"Report of Dr. Arth  r Farre and Mr. Grainger to the General Board of Health, on Thirty-eight metropolitan workhouses". 1850 (133), xxi. 737.

"Report to the Board of Health in reference to the sanitary condition of Agar Town, St. Pancras, and other parts of the metropolis". 1851 (388), xxiii. 1.

"Report on a general scheme of extra-mural sepulture for country towns". 1851 (1348), xxiii. 177.

"Second Report on Quarantine; Yellow Fever". 1852 (1473), xx. 117.

Reports made to the Home Secretary by the Assistant Commissioner of Police on the operation of the Common Lodging-Houses Act, 1851. 1852 - 53, lxxviii. 525; 1854, xxxv. 115.

"Papers received by Board of Health, exhibiting operation of Common Lodging-Houses Act". 1852 - 53, lxxviii. 553.

"Letter from the General Board of Health to the Home Secretary on smoke consumption". 1854, lxi. 533.

F. A SELECTION OF BOOKS.

(1) BIOGRAPHIES OF CHADWICK.

The memoir prefixed to "The Health of Nations" (2 vols., 1887), written by Sir Benjamin Ward Richardson from information communicated by Chadwick himself, is the most authoritative source for Chadwick's personal and family history. It is unfortunately brief and very reticent. The Board of Health is dismissed on one page, and the mildness of the narrative points to the exercise of a strong censorship by Richardson. The survey of Chadwick's works which follows is largely an uncritical précis, but it contains a few comments by Chadwick himself. An abridged version in one volume, "National Health", was published in 1890.

Richardson's memoir may be compared with the articles in the "North British Review", vol. xiii, pp. 40 - 84, 1850, (by Professor Masson), and "The Sanitarian", vol. v, pp. 176 - 182, April 1877, both of which incorporate material supplied by Chadwick himself.

Maurice Marston's "Sir Edwin Chadwick" (1925) is a popular account, of little weight, and based largely on Richardson. "Edwin Chadwick and the Early Public Health Movement in England" by Dorsey D. Jones (University of Iowa Studies in the Social Sciences, vol. ix, No. 3, 1931) is a more scholarly work, but its sources are limited to the more accessible of the printed materials.

Portraits of Chadwick are given in Richardson and Marston (both late, aet. c. 70); J.A. Dolmege, "Towards National Health" (1931), aet. c. 45; and, with B.W. Richardson and Professor R. Owen, "A Scientific Triad", in the "Pictorial World" for 29 May 1890. There is a bust of Chadwick in the library of University College, London.

(2) MEMOIRS AND LETTERS OF CONTEMPORARIES.

Since sanitary measures were at the very margin of political interest, very little can be derived from the biographies and printed papers of the leading political figures of the time.

E. Hodder's "Life and Work of the Seventh Earl of Shaftesbury" (1886) contains some valuable extracts from Shaftesbury's diary, but is very discreet on controversial issues. Chadwick had to be restrained by Richardson from bursting into print to attack this book, presumably on account of its omissions and the emphasis it lays on Shaftesbury's work at the Board of Health at the expense of his colleagues.

"Dr. Southwood Smith" (1899) by the Doctor's granddaughter, C.L. Lewes, is a guileless essay in hero worship, which regards him as the originator and chief figure in the public health agitation, barely ^{mentioning} ~~mentioning~~ Chadwick. Though its documentary value is slight, however, it succeeds in conveying an impression of Southwood Smith's charm of character. See also F. Howell, "Sanitary Reform and Services of Dr.

Southwood Smith in connection therewith" (pamphlet, 1855).

For the Earl of Carlisle there is little except the D.N.B. article and the essay by Harriet Martineau in "Biographical Sketches" (4th ed., 1876).

"The Letters, Remains, and Memoirs of Edward Adolphus Seymour, Twelfth Duke of Somerset, K.G.", ed. W.H. Mallock and Lady Gwendolen Ramsden (1893), is quite useless, Chadwick and the Board of Health being nowhere mentioned. There is a sketch of Seymour's life in "The Seymour Family" by A. Audrey Locke (1911).

For G.C. Lewis there are the "Letters", edited by Sir Gilbert Frankland Lewis (1870), and the essay by W. Bagehot in his "Biographical Studies" (1881). A memoir of George Nicholls, by H.G. Willink, is prefixed to vol. 1. of the 1898 edition of his "English Poor Law".

Also:

- M. Bowley, "Nassau Senior and Classical Economics" (1937)
- J. Bowring, "Memoirs of Jeremy Bentham" (1843).
- H. Cole, "Fifty Years of Public Work" (1894).
- E.B. de Fonblanque, "Life and Letters of Albany Fonblanque" (1874).
- Mrs. Grote, "The Personal Life of George Grote" (1873).
- M. Greenwood, "The Medical Dictator, and other Biographical Studies", (1936) (For William Farr).
- W. Hale-White, "Great Doctors of the Nineteenth Century" (1935) (for John Simon and Neil Arnott).
- N.A. Humphreys, "Vital Statistics: a memorial volume of selections from the reports and writings of William Farr" (1885).
- R.E. Leader, "Life and Letters of J.A. Roebuck" (1897).
- J.G. Lockhart, "Viscount Halifax, 1839 - 1885" (1935) (for Sir Charles Wood).
- A. Newsholme, Lecture on William Farr, "Economica", Nov. 1923.
- R. Owen, "Life of Richard Owen" (1894).
- W. Reid, "Memoirs and Correspondence of Lyon Playfair" (1899).
- B.W. Richardson, "Disciples of Aesculapius" (1900). (For Thomas Wakley and John Snow).
- F. Smith, "Life and Work of Sir J. Kay-Shuttleworth" (1923).
- J.L. and B. Hammond, "Lord Shaftesbury" (1923).

(3) THE PUBLIC HEALTH MOVEMENT.

Sir John Simon's "English Sanitary Institutions" (1890) is the fullest and best account, written by an authority who knew and respected the leaders of the movement and very largely shared their theories. "The Public Health Agitation, 1833 - 48", by B.L. Hutchins (1909), reprints a series of lectures delivered at the London School of Economics, and contains short but useful studies of Southwood Smith and Chadwick. "The Story of English Public Health", by Sir Malcolm Morris (1919), is admittedly based on Simon. A more recent study, "Towards National Health" by J. A. Dolmege (1931) pushes the story back into earlier centuries.

The work of earlier reformers is described in M.C. Buer, "Health, Wealth, and Population in the early days of the Industrial Revolution" (1926); M.D. George, "London Life in the Eighteenth Century" (1925); G.T. Griffith, "Population Problems of the Age of Malthus" (1926).

Also:

- Sir George Newman, "The Rise of Preventive Medicine" (1932)
 "The Building of a Nation's Health" (1939).
 "Health and Social Evolution" (1931).
 Sir A. Newsholme, "Elements of Vital Statistics" (1889)
 (contains examples of Chadwick's statistical blunders).
 "Ministry of Health" (1925).
 H.M.S.O., "The Story of the General Registry Office"
 (centenary volume, 1937).

The best introduction to the medical theories of the time is probably given by the two classics of epidemiology, John Snow's "On the Mode of Communication of Cholera" (1849; reprint of second edition of 1854, entitled "Snow on Cholera", New York, 1936), and William Budd's "Typhoid Fever" (1874; reprinted, New York, 1931). Southwood Smith's views are stated in his "Philosophy of Health" (1835).

Also:

- C. Creighton, "History of Epidemics in Britain" (1894).

- F.H. Garrison, "An Introduction to the History of Medicine" (1914).
 E.W. Goodall, "A Short History of Infectious Epidemic Diseases". (1934).
 M. Greenwood, "Epidemiology, Historical and Experimental" (1932).
 D.J. Guthrie, "History of Medicine" (1945).
 H.H. Scott, "Some Notable Epidemics" (1934).
 H.E. Sigerist, "Man and Medicine" (1932).
 C. Singer, "A Short History of Medicine" (1928).
 H. Zinsser, "Rats, Lice, and History" (1935).

(4) ADMINISTRATIVE AND ECONOMIC HISTORY.

- E. Cannan, "History of Local Rates in England" (1896).
 C.T. Carr, "Concerning English Administrative Law" (1941).
 J.H. Clapham, "Economic History of Modern Britain" (1930).
 F. Clifford, "History of Private Bill Legislation" (1885).
 E.W. Cohen, "The Growth of the British Civil Service" (1941).
 S. Dowell, "History of Taxation and Taxes in England from the Earliest Times to the year 1885" (1888).
 H. Finer, "The British Civil Service" (revised ed., 1937).
 G.L. Gomme, "London in the Reign of Victoria" (1898).
 B.K. Gray, "Philanthropy and the State" (1908).
 H.R.G. Greaves, "The Civil Service in the Changing State" (1947).
 E. Halévy, "History of the English People" (1924 - 7).
 J.L. and B. Hammond, "Age of the Chartists" (1930).
 Hutchins B.L. and Harrison J.A., "History of Factory Legislation" (1911).
 H. Jephson, "The Sanitary Evolution of London" (1907).
 H.J. Laski, W.I. Jennings, and W.A. Robson, ed., "A Century of Municipal Progress" (1935).
 G. Nicholls, "History of the English Poor Law" (1854).
 A. Redford, "History of Local Government in Manchester" (1939).
 A.H. Robson, "The Education of Children engaged in Industry, 1833 - 1876" (1931).
 G. Slater, "Poverty and the State" (1930).
 K. Smellie, "A Hundred Years of English Government" (1937).
 F.H. Spencer, "Municipal Origins" (1911).
 S. and B. Webb, "Statutory Authorities"
 "English Poor Law History",
 (vols. 4 and 7 - 9 of "English Local Government" 1906 - 29).
 W.H. Wickwar, "The Public Services" (1938).
 A. Wilson and H. Levy, "Workmen's Compensation" (1939).
 "Burial Reform and Funeral Costs". (1938)
 R. Moses, "History of the Civil Service" (1914).

G. PAMPHLETS.

The great majority of Chadwick's collection of pamphlets, covering all his multifarious interests, poor law, public health, education, police, agriculture, etc., are deposited in the British Museum. They fill 535 volumes, under the press mark C.T.

Part of Chadwick's library, 274 books and 43 pamphlets, was given to the Manchester Public Libraries in 1891 by his son, Osbert Chadwick.